

# MANUFACTURERS' RECORD

A Weekly Southern Industrial and Hardware Newspaper.

Vol. XII. No. 19. WEEKLY. BALTIMORE, DECEMBER 17, 1887. \$3.00 A YEAR. SINGLE COPIES, 10 CENTS.

**EUREKA PACKING** Sole Manufacturers of **JAS. SMITH & CO.** Dealers in  
 Steam, Hydraulic and Locomotive Packing, Works, 413 to 421 Race St., Cor. of Crown.  
 OF EVERY DESCRIPTION. Office & Store, 137 Market St., Philadelphia.  
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 WE MAKE ROLLS AND PORTABLE MILLS COMPLETE.  
 Manufactory Established in 1851. Pamphlets with Prices Mailed Free.  
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**ELEVATORS** MORSE ELEVATOR WORKS.  
**MORSE, WILLIAMS & CO.** Successors to CLEM & MORSE  
 Manufacturers and Builders of HYDRAULIC STEAM, ELEVATORS With most approved Safety Devices.  
 BELT and Hand-Power, PASSENGER and FREIGHT. Dumb-Waiters, Automatic Hatch-Doors, &c.  
 Office: 411 CHERRY STREET, PHILADELPHIA, PA.  
 Works: FRANKFORD AVE., WILDEY & SHACKANAXON STS.  
 Branch Office, 108 Liberty Street, NEW YORK.

Report of the **AQUEDUCT** Commissioners.  
 [NEW CROTON AQUEDUCT, NEW YORK.]  
 AN ELABORATE VOLUME, CONTAINING AUTHORITATIVE TABLES BY THE CHIEF ENG., B. S. CHURCH. JUST ISSUED.  
**PLANT** (by actual count from Table 1b.)  
 Number of Ingersoll Drills used..... 249  
 Number of Drills of all other kinds..... 103  
**PROGRESS** (by actual figures from Table 8.)  
 Average weekly progress in best 20 headings that used Ingersoll Drills exclusively (omitting all idle weeks)..... 38.73  
 Average weekly progress in best 20 headings that used other drills exclusively (omitting all idle weeks) 31.68  
 DIFFERENCE OF 20 PER CENT. IN FAVOR OF INGERSOLL DRILLS.  
**INGERSOLL ROCK DRILL CO.,** 10 Park Place, New York City.

**ROOT'S NEW WATER TUBE STEAM BOILER,**  
 Safe, Economical, Durable.  
 Recently adopted by the BRUSH ELECTRIC LIGHT CO., at Louisville, the EDISON ELECTRIC LIGHT CO., Detroit, and the COLUMBUS EDISON ELECTRIC LIGHT CO., Columbus, Ohio.  
**Abendroth & Root Manufacturing Co.**  
 28 CLIFF STREET, - - - NEW YORK.

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 A. R. JENNISON, Esq., Rochester, N. Y.  
 A. S. FRIKE, Esq., 41 Johnston Building, Cincinnati, O.  
 WILLIAM H. SMITH, Esq., 116 Dearborn St., Chicago, Ill.  
 CHAR. E. ASHCROFT, Esq., 28 Nassau Bldg., Boston, Mass.  
 JOHN S. MOORE, 189 Gravier Street, New Orleans, La.  
 T. A. PACKER, Shadley Building, Kansas City, Mo.  
 V. KERRILL, 148 N. Third Street, Philadelphia, Pa.  
 WIGGS & BACON CO., Birmingham, Ala.

**Thomas K. Carey & Co.** LEATHER AND RUBBER BELTING, Cotton and Woolen Mill Supplies, LATHES, PLANERS, DRILLS, Engines, Shapers, Gear Cutters, &c.  
 21 S. CHARLES STREET, BALTIMORE. Write for New Machinery Catalogue.

**THE MEDART PATENT WROUGHT RIM PULLEY.**  
 OVER 300,000 NOW IN USE. THE LIGHTEST, STRONGEST, BEST BALANCED and CHEAPEST in the WORLD.  
 Shafting, Hangers, Couplings, &c.  
**MEDART PATENT PULLEY CO.,** 1906 TO 1914 N. MAIN STREET, ST. LOUIS, MO. Stores: 99 to 101 W. Second St., Cincinnati. 24 & 26 S. Canal St., Chicago.

**FRANK W. SWETT, MANUFACTURER OF BAND SAWS,** 69 SOUTH CANAL ST. CHICAGO, ILL. EVERY BLADE WARRANTED.

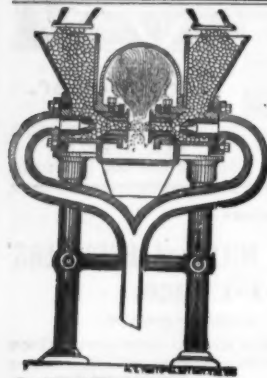
# MECKLENBURG IRON WORKS, Charlotte, N. C.

BUILDERS OF { *ENGINES and BOILERS, STAMP MILLS,*  
CRUSHERS, Circular Saw and Grist Mills, CORNISH PUMPS,

## MINING MACHINERY.

Cotton Presses, Water Wheels, Shafting and General Machinery.

JOHN WILKES, Manager.



Sectional View of Pulverizer.

## PNEUMATIC PULVERIZER.

The principle of pulverization consists in the employment of

### TWO POWERFUL OPPOSING CURRENTS

of dry super-heated steam, so arranged that they continuously charge themselves with crushed or granulated material, and by the great force and velocity of the steam currents the minerals are dashed against each other with such power of concussion as to cause the hardest ores to be pulverized to any degree of fineness desired. The high temperature of the super-heated steam currents employed, through which every minute particle of ore must pass, causes them to become very hot and dry, which produces a beneficial effect upon Sulphurets and ores containing rusty Gold. The light weight and simplicity of construction of the Pulverizer, the extremely small and inexpensive wearing parts are the WONDER and SURPRISE of all who witness its operation. The Company are prepared to furnish complete plants for pulverizing

10 to 200 Tons Per Day,

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F. A. LUCKENBACH, Supt.

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Please accept congratulations for your success.  
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STEAM ENGINES and BOILERS,

Lane's Patent Band Friction Hoisting Machinery,

FOR MINES, BLAST FURNACES, DOCKS, ETC.

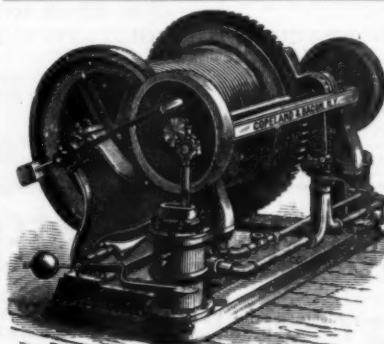
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## Webster, Camp & Lane Machine Co.

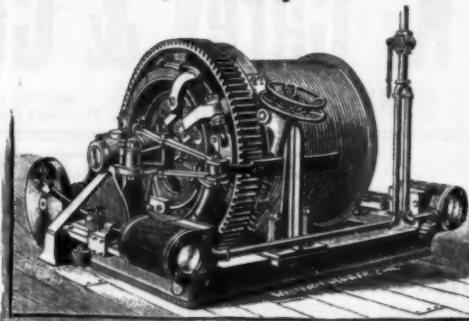
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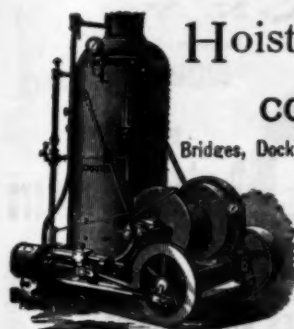
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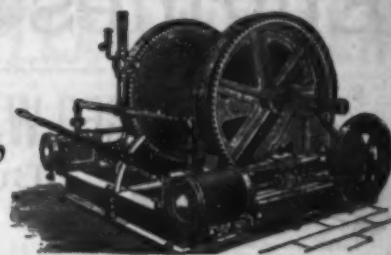
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Horizontal Engines

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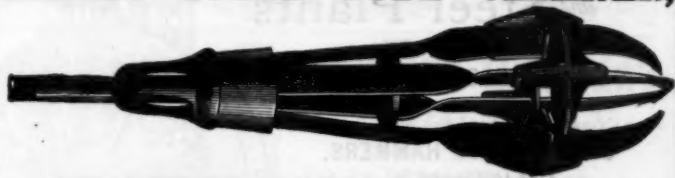


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For Cleaning  
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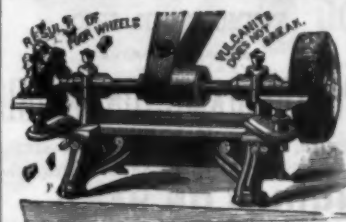
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A trial will convince you of this. Knife-Grinding Wheels a Specialty.

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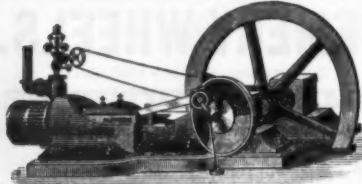
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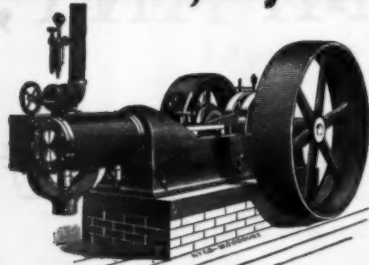
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**Automatic Cut-off Engines**

5 to 300 Horse Power.

Economy in Fuel Consumption,  
Close Regulation,  
Great Durability and Simplicity,  
Perfect Workmanship and Design.

Unrivalled in these qualities, our engines are suitable for all purposes, especially where high speed and difficult service are required, as in electric-light plants, rolling mills, etc. Send for Illustrated Catalogue.

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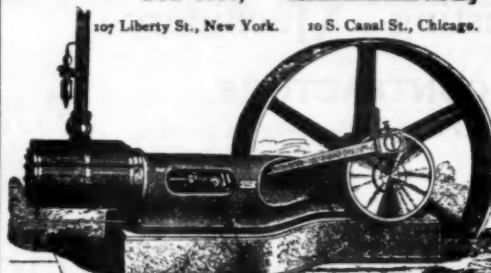
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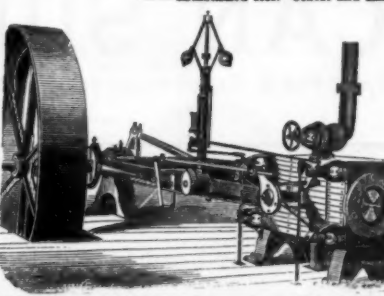
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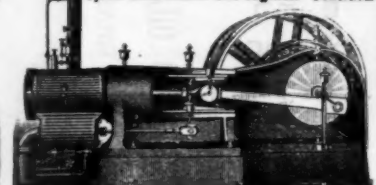
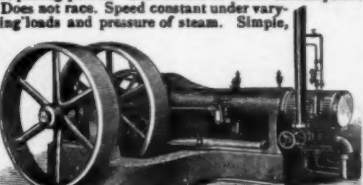
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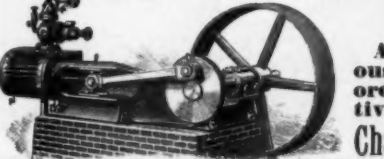
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Adapted to Heavy, Continuous Work. Cost no more than ordinary Engines. For descriptive circulars, address

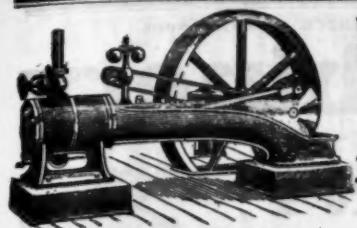
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Positively prevents and removes scale in steam boilers without acting on any of the metals. A real necessity for Southern steam users. Saves fuel, repairs and trouble, and doubles the life of the boiler. Sold on its merits, and satisfaction guaranteed or no pay. Write for sample.

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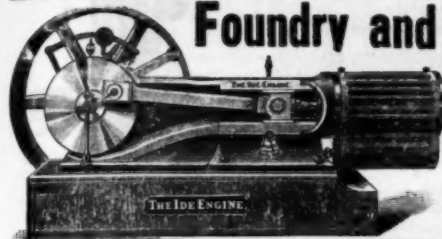
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Double Drum Derrick Engines. Single Drum  
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Superior Regulation and  
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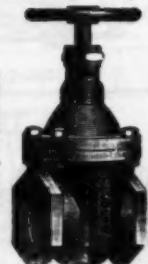
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1. A perfectly tight valve under any and all pressures of steam, oils, or gases.
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absence of any noise when in operation. The valve fulfills all the claims which you make  
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Respectfully,  
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The best and most complete House Heater in the world.  
Self-feeding, automatic, portable and saves all expense of  
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hours without attention. Compact. 14 sizes, from 4 to 1 feet  
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**3500 in ACTUAL USE,**  
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## THE RED JACKET STEAM BOILER Flue Blower

Is the Cheapest

And Most

Reliable Flue Cleaner

In the Market.



Simple in Construction,

Easy to Operate.

ECONOMIZES FUEL

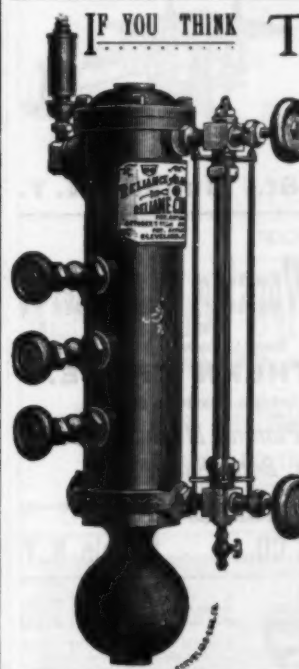
And

Increases Boiler Capacity.

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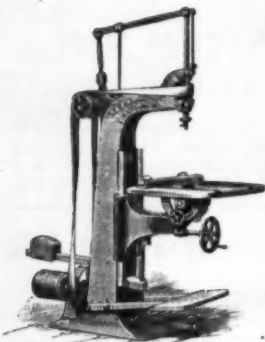
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# Wood-Working Machinery

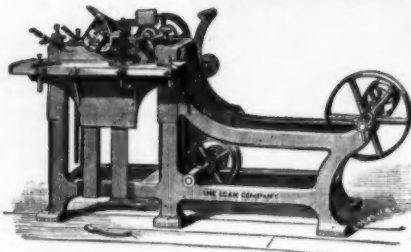
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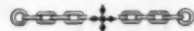
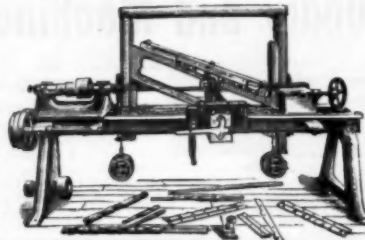
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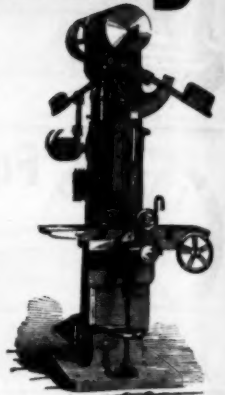
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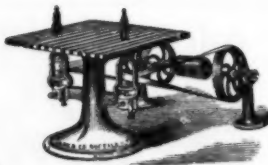
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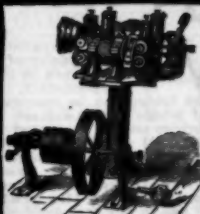
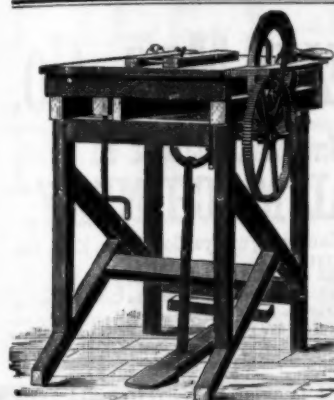
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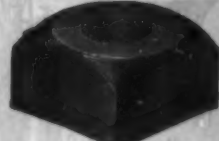
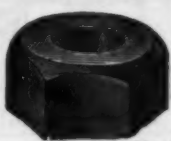
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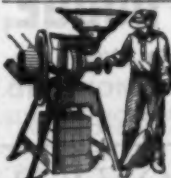
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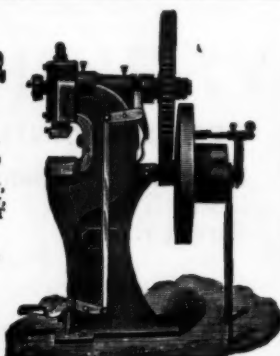
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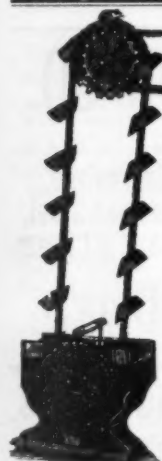
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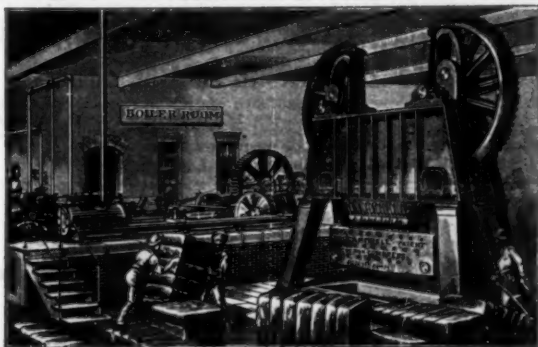
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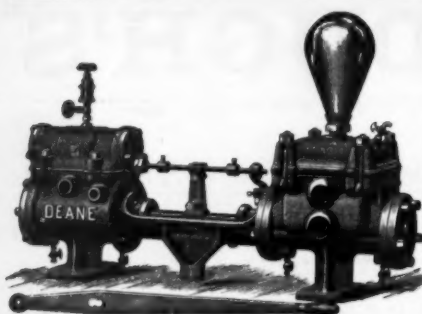
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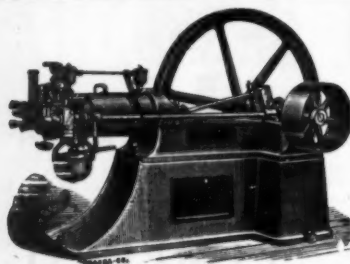
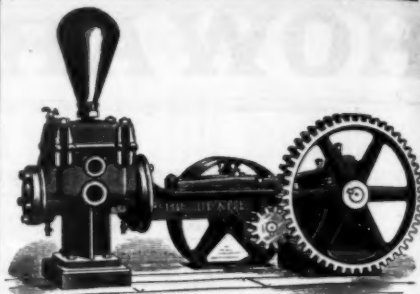
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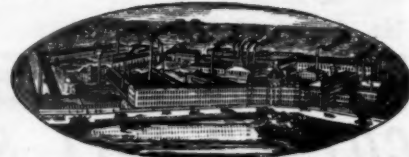
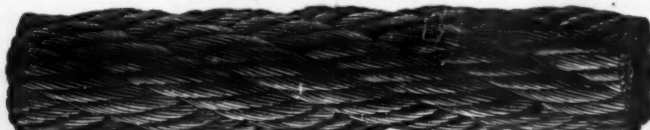
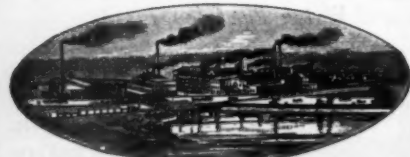
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## Manufacturers' Record.

PUBLISHED EVERY SATURDAY BY THE  
MANUFACTURERS' RECORD CO.J. W. BISSY, Pres.  
R. H. EDMONDS, Treas.  
WM. H. EDMONDS, Secy. & Manager.

R. H. EDMONDS, EDITOR.

—OFFICE—

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BALTIMORE, DECEMBER 17, 1887.

A FEW weeks ago two parties of Northern and Western capitalists and iron manufacturers, representing in the aggregate, it is said, over \$200,000,000, made a tour of investigation through the South. They wished to see for themselves if the South had made the great progress reported in the MANUFACTURERS' RECORD and other papers. Included in this party were August Belmont, Jr., the banker; Mr. Geo. M. Pullman, Hon. Robert T. Lincoln, representatives of Kuhn, Loeb & Co., Hallgartner & Co. and Powers & Co., all leading New York bankers; Mr. Jos. D. Weeks, editor of the American Manufacturer and Iron World, of Pittsburgh; one of the editors of the Iron Age, of New York; President Norton, of the Louisville & Nashville Railroad, and many other distinguished men. They went to investigate. And believing that the reports of such eminent practical business men would do the South great good, the MANUFACTURERS' RECORD has secured from a number of them and presents in to-day's issue their views upon the progress already made and the prospects for the future. Included in these letters is one from Mr. A. Schoonmaker, of the Interstate Railroad Commission, written just after his return from the South last spring, and now for the first time made public, with his permission. These letters, coming from practical business men and great capitalists, will carry more weight than has been given to anything written of the industrial interests of the South since Judge Kelley's admirable letters to the MANUFACTURERS' RECORD.

The MANUFACTURERS' RECORD takes great pleasure in again rendering to the South such a signal service in securing the testimony of these leading Northern business men to the remarkable industrial progress of the South and their predictions of its brilliant future.

MANAGERS of mills, factories, furnaces, mines, etc., and parties starting manufacturing enterprises, and needing machinery or supplies of any kind, will find it profitable to consult the advertising columns of the MANUFACTURERS' RECORD. Its pages contain names of the best houses in the country among manufacturers of and dealers in machinery and mill supplies.

## The President's Message.

Like a lightning stroke from a cloudless sky, so fell the President's message upon the startled country. Political friends and foes were alike astounded that the chief executive of the nation should depart from the time-honored usage of his illustrious predecessors, and, ignoring all other questions of interest and importance, should send to Congress an argument against a policy that was commended by the founders of our government, that has been supported by many of the ablest statesmen of every period of our national history, and that has during the past 25 years made the prosperity of this country the wonder and admiration of the world. Nor was the wonder abated after a careful study of this extraordinary State paper, for to every one conversant with past discussions it was apparent that the President knew very little of the subject, but that he had adopted the false assumptions and theories of doctrinaires of the Sumner school, many of which had been exploded long ago. This message was delivered last week, just before the MANUFACTURERS' RECORD went to press, consequently it was then impossible to do more than to express our dissent to the policy recommended, and to warn the people of the South who do not care to see their prosperity destroyed by free trade to make themselves heard at once. We renew this warning with more earnestness than ever, for after studying the message carefully in the light of concurrent events, we are satisfied that nothing short of determined and persistent protests from all parts of the South will prevent great and terrible calamities from overtaking that section. In saying this, we do not wish to be understood as fearing that the unwise policy recommended by the President and the Secretary of the treasury will prevail with Congress, for as that body is now constituted, any material change in the existing tariff is impossible. The danger lies not there, but in another direction. The President has made "a tariff for revenue only" the political question of the immediate future. From now until the national election next year the two great parties that divide the country and all their newspaper organs will keep this subject before the people to the exclusion of all others. What the result will be it is too early to predict. Meanwhile capital, ever timid, and especially fearful of changes in the established order of things, will be hoarded or invested in absolutely safe securities, thus preventing the commencement of new enterprises, and compelling many already well started to stop before they are completed. The uncertainty of the outcome of this contest has already created a feeling of distrust in financial circles, which will increase as time advances, unless such a wide-spread and earnest opposition to the President's policy is manifested as shall compel the administration and its free-trade adherents to abandon their attempt to destroy the protection feature of the existing tariff.

## Imports of Metals and Iron Ore.

During the last ten months the imports of iron ore and metals into the United States have been unusually heavy, largely exceeding even the enormous imports of 1886. Iron ore has been received at the rate of 100,000 tons a month, or over 1,000,000 tons for the first ten months of the year, while the total value of the imports of ore and metals for the same time was upwards of \$50,000,000, an aggregate of \$16,000,000 over the corresponding time in 1886.

Articles.	Ten mos. ending Oct. 31, 1887.	1886.
Iron ore, tons.....	1,099,597	854,366
Pig iron, tons.....	413,958	381,444
Scrap iron, tons.....	24,608	56,328
Scrap steel, tons.....	26,021	3,820
Bar iron, rolled or hammered, lbs.....	69,975,597	54,118,349
Iron rails, tons.....	241	8
Steel rails, tons.....	111,513	20,228
Cotton ties, tons.....	45,088,383	22,214,452
Hoop, band and scroll iron, lbs.....	70,740	254,875
Hoops, bands, plates of steel, lbs.....	45,919,667	6,669,617
Ingots, blooms, slabs, billets and bars of steel, lbs.....	635,656,141	218,646,278
Sheet, plate and taggers' iron, lbs.....	13,655,507	10,673,212
Tin plates, lbs.....	545,174,848	498,574,640
Wire rods, lbs.....	297,626,250	263,658,236
Wire and wire rope, lbs.....	5,023,904	4,666,490
Anvils, axes and forgings, lbs.....	2,545,653	1,700,991
Chains of iron or steel, lbs.....	1,560,968	1,004,696
Cutlery.....	1,720,901	\$1,538,846
Files, file blanks, rasps and floats.....	68,458	\$ 43,987
Fire-arms.....	8,964,96	\$ 810,566
Machinery.....	1,583,194	\$1,360,723
Needles.....	276,515	\$ 276,210
All other.....	1,687,718	\$1,273,236
Total value, including iron ore.....	\$50,951,492	\$36,199,230

Of pig iron the imports increased during the ten months under review from 321,444 tons to 413,958 tons; steel rails from 20,228 tons to 111,513 tons; cotton ties from 22,214,452 pounds to 45,088,383 pounds; ingots, blooms and billets of steel from 218,646,278 pounds to 635,656,141 pounds.

Reducing to tons, the total imports of iron, steel and other metals for the first ten months of 1887 amounted to the enormous sum of 2,100,000 tons, and if to this we add the imports of ore, the aggregate is 3,190,000 tons. Surely we might think that this was enough foreign metal to have been dumped on our shores, but President Cleveland and his advisers seem to be anxious to increase the amount and to make it possible to flood our markets to a greater extent than ever before with foreign materials.

AT Cumberland Gap, Kentucky, where the Powells Valley, the Marietta & Georgia and other railroads are to meet, it is proposed to build up a new iron and steel manufacturing town. The American Association, Limited, of London, of which Mr. A. A. Arthur, of Knoxville, Tenn., is the manager, are arranging to have several furnaces, steel plants and four or five large coke plants established, and also some lumber mills. The advantages of this location are such that it is believed that a great manufacturing center will be rapidly developed there.

NORTH CAROLINA is to have a silk factory, to commence operations with about 50 hands, to be increased to 500 as the business gets in shape. And so the diversification of Southern industry goes on.

## British Jubilation.

There is joy in Great Britain. The Cobden Club is in ecstasies. The manufacturers of Manchester are wild with enthusiasm. The magnates of Thread Needle street sip their old port with a new relish. The ship-builders of the Clyde can scarcely contain themselves. And why? Because the President of the United States has turned a sharp corner, and has sent a message to Congress that might well have been written by John Bright or by any one of their great leaders of free trade thought. They see that if its suggestions are adopted, the doors that have been so long closed against them will be opened to the markets of the United States, and that its 60,000,000 of people will be their customers. It is the possible fulfillment of a long deferred hope that has given rise to the joyous peans which thrill along the wires beneath the Atlantic. "Mr. Cleveland's policy," said the London Times, "may not establish free trade in the strict sense of the term, but it will to a great extent make trade free." The London Daily News said: "The President does not seem to perceive the effect of his own arguments, or even the meaning of his own words. His statement that the question of free trade is irrelevant is astounding and preposterous. Mr. Cleveland has persuaded himself to think, or finds it convenient to say that the principle of fostering native industries by duties on foreign imports can be made compatible with the principle of regulating the burdens upon the people by the needs of the public service. It is pure delusion. Protection, albeit indefensible, is the height of wisdom compared with proposals which combine all the evils of interference with all the risks of liberty."

The Standard said: "The President's real meaning is that the scheme by which the artificial fabric of domestic enterprise has been built up in America is fundamentally vicious. He demands in effect that there should be a tariff for revenue only." The Spectator declared: "The President's terse and telling message has struck a blow at American protection such as never could have been struck by any Fair Trade League." The Saturday Review, always an undisguised enemy of the American republic, could not repress its happiness at this unexpected stroke of good luck. It praised the President for his boldness and said: "He declines cautiously to dub himself a free trader, but he takes up a free trade position without disguise." All the provincial journals join in this chorus of praise for the message, and congratulations to Great Britain, as well they may, for if the suggestions of the message should be adopted many furnaces and factories in the United States would be compelled to shut down, for English iron and steel would flood our markets.

The effects that would follow the



adoption of the President's proposition were tersely stated by Dr. E. P. Miller, a well-known writer on economics in New York, to a reporter of the Press of that city. He said:

"It would close tens of thousands of our manufacturing establishments and turn those employed therein into tramps and thieves. It would convert tens of thousands of organized laborers into organized Anarchists. It would transfer that wonderfully exasperating surplus in the United States Treasury into the capacious vaults of the Bank of England, France and Germany. It would cause \$2 to be withdrawn from the business interests of this country to pay for imported manufactured products made in foreign countries, to \$1 hitherto taken for duties, to add to the surplus in the United States Treasury. It would stop the wheels of industry in this country and turn employes into idleness, and start the factories of Europe and convert their idlers into useful workingmen."

If President Cleveland had been employed by foreign potentates to write a message in the interests of foreign powers, he could not have been more successful in his efforts in that direction than he has been in preparing this message. If the doctrines it contains are carried out, it will require a large increase in the United States standing army to keep strikers, rioters and Anarchists in subjection."

It is for the American people to say whether they will retain the admirable system under which the country has reached its vast development, or whether it will give joy to British free traders by exchanging it for a policy beset with perils, that will destroy the magnificent progress of the present era, and throw the business of the country into dire confusion.

It is certainly true that the tide of immigration and of public interest has turned southward, but the country that does the best advertising will get the first business. When all the rest of the South shall have been boomed and filled up with people and new industries, New Orleans will finally remain as the only place to come to, and then we will get the people and the business without having to work for them, but simply by waiting for them. Let us all pray that the waiting process may not last beyond a reasonable lifetime. Waiting is a sure game, but terribly slow—New Orleans Picayune.

A good many other places are trying the waiting business, and from present indications they will never improve until the rest of the world has reached its limit of growth, and then they may get some of the overflow. "Waiting," says the Picayune, "is a sure game, but terribly slow." We cannot accept the truth of the first statement, for waiting is not by any means always sure. The town that waits, may wait forever, and still not receive the desired increase of wealth and population.

"THE President's Message," writes Mr. W. H. Wren, president of the Glamorgan Iron Co., Lynchburg, Va., in a letter to the MANUFACTURERS' RECORD, "is a disappointment to our section, and must prove such to the entire South. Our manufacturing industries are just in their infancy and must be protected or abandoned." From one end of the South to the other there is disappointment in this message. Through the entire document there runs a thread of ill feeling against manufacturers.

## Solid Prosperity of the South.

### From Poverty to Solid Possessions.

#### What an Inter-State Railroad Commissioner Saw—Results of Emancipation.

#### More Investment than Speculation—Observations of Northern Men.

#### The Present Condition Sound—The Future Bright.

BANK OF D. POWERS & SONS,  
LANSINGBURGH, N. Y., Dec. 6, 1887. }  
Editor Manufacturers' Record:

Few people in the North, unless they have been in the South, now fully realize the radical change which has been wrought in the South since the war, and the promise of the future which this change holds out. In a general but vague sort of way there is an opinion in the North that the South has made an advance which is substantial; but there is also an impression that there is a speculative element in this improvement which is unsound and which has either culminated, or will soon come to an end and the progressive movement will then stop. This is a mistake. The general movement is solid; it may halt sometimes; local undertakings may fail. But the development of the South is as well assured as that of any part of the country.

#### THE TRANSFORMATION.

In all material things the South was poor beyond the power of words to tell in 1865. Yet the people were richer than they ever had been, for they were freer than they ever had been. The blacks were liberated from shackles, and clogs were cut from the feet of white men. All could run as they never had done before. A great constraining force that checked enterprise, that hindered competition, that compelled the practical denial of perfect freedom in the use of the energy, the ambition and the potential capability of the men in the South, was removed. Hence, while they were poor in material resources, that is in accumulated capital, they were then rich in the opportunity which this new liberty opened to them; this they have used and the New South is their creation. To-day the people of the South are rich in their capital and developed resources and still richer in their energy and their discipline at labor and business, in their knowledge of the abounding native wealth and the advantages of their country, and in the faith which they have gained in their power for the development of these great resources and their transmutation into productive property.

Is this too bright a picture? It does not seem so to those who take a survey of the present situation of this region and who measure the impulses and forces which are now prevailing in the South. It is significant and instructive to learn what impression the South makes upon a Northern man in 1887, who looks at it with an eye trained to the study of material and social conditions in the North. It may be recollected that the Interstate Commerce Commission made an extended trip in the South during last spring. One of the members of the commission, Hon. A. Schoonmaker, of our State, generalized his impressions and estimate of the South, after his return, in the following letter, to wit:

#### JUDGE SCHOONMAKER'S OPINION.

THE INTERSTATE COMMERCE COMMISSION.  
KINGSTON, N. Y., May 11, 1887.

Hon. Henry L. Lamb:

DEAR SIR—I am in receipt of your letter of 9th inst. with newspaper clipping enclosed, which I have read with interest. Your views of the South, its development and its promise are correct. It will soon

rival, if not surpass, the North and West in the quantity and value of its products, in the enterprise and resources of its people, and in political importance and weight in national affairs. In their emancipation from the bane and incubus of slavery, the people of the South have also been emancipated from the ideas and traditions of the past; and that portion of the country has experienced a revolution full of the greatest significance.

The great railroad lines everywhere penetrating and traversing the South have made it a new country, and have rendered its development and prosperity not only possible but certain. The influx of capital and of skilled, well-informed and able men from the North and East and from Europe, has also contributed vastly to the growing prosperity of the South and to its large promise for the future. Its great advantages are inexhaustible resources and cheap production. To these the railroads have added cheap rates of transportation, both carrying away products and bringing in needed supplies. The beneficial effects are evident all over the South.

The additional circumstances of a more homogeneous country, a better appreciation of our national union with the blessings which it secures to every portion of the country, greatly improved sanitary conditions, better schools, more pronounced individuality and increased home comforts, fill out the picture of the New South.

In a word, competition of man with man and of enterprise with enterprise now stimulates and characterizes the South, as it does the North and West; and is producing like results.

I feel that I have been greatly instructed by our trip South, and that I have a vastly better, but still inadequate idea of the immensity and grandeur of our country and its unmeasured capabilities.

Very truly yours,

A. SCHOONMAKER.

The South went at work twenty years ago bare-handed. To-day she is in the enjoyment of all the accumulated capital which she has made during this period; and besides, of all the capital, and the energy, hope, grit of successful workers that have come up to her, now that there is freedom to dare and to do. The ruling spirit is new; the entire environment of this region is new. The present generation is free from the traditions which hampered the last one. I find that the habits of the men in the South have changed; their aims and their purposes are different; their hopes are very high. The industries of that section have widened and become diversified. And now the active men in the South, who are "to the manor born," have an adequate conception of the value of the magnificent varied natural resources of the Southern States. In this they find at once an inspiration and something like an invincible faith and resolution to turn these abundant advantages into use and into wealth that shall bless the people.

It is more than a half year since Mr. Schoonmaker recorded his impressions of the Southern States and their people, whom he saw face to face. Later evidence than this may be adduced to show that in this "phenomenal year" the South participates in the gains of the year and is still stepping forward upon solid ground. During the last month it was my privilege to make an extended trip through the heart of the mineral region of the New South, to see what has been done and to learn what is now projected and is already in the way of consummation. And I was also fortunate in the opportunity of having my personal observations broadened and supplemented by the information in the possession of Eckstein Norton, of New York, who has extensive and intimate acquaintance with the new movement in the South and with the men who

are directing this movement of production, business and commerce.

#### UTILIZING NATURAL RESOURCES.

The development of the South is natural, solid and permanent. I do not mean that there are not special and local speculative undertakings. But the central fact is that this growth is based upon varied resources, which insure ultimate success just as much as similar elements have in Michigan, Ohio, Illinois and other States. I will classify and recite some of the chief factors which are now making the South a new country in all essential things.

#### NEW AGRICULTURE.

1. The South has much diversified its agricultural production since 1866. Total production is increased thereby, the variety of its products is extended, the food supply grown is much greater, less attention is paid to cotton as an exclusive crop. In a word, planting is giving way to farming, to genuine agriculture; so the people come nearer to self-support. If cotton should fail, other crops remain to fall back on. Yet farming has not kept abreast of the industrial advance in improved methods. Farms have not the visible thrift and tidiness of the Northern, Middle and Western States. A great deal has been done to show the possibilities of the region for farming in the Northern way to Northern farmers; and inquiry by the latter class is widely extending. This year the cotton crop, as well as others, is above the average in all the south, east of the Mississippi, excepting tobacco. I feel confident that the South will yet make a marked gain in its agriculture by the introduction of Western and Northern men, who will be richly rewarded by farming the South in their skillful and thorough way.

#### IMMENSE FORESTS.

2. There are very great possibilities in the South in cutting its forests and in making them up into the articles which the large variety of the woods fits them for. The finest hardwoods in the United States in large quantities are in the uplands of the South at this time in the States from West Virginia to Alabama. And immense tracts of pine and other soft woods remain uncut. Some forests are primeval, yet they promise to be accessible within a short time by the construction of new railroads. As the forests of the Northwest fall these of the South will come into use and full demand. I saw the evidence of this disposition to consume much of this product of wood in the South in manufactories to be built there.

#### UNRIVALED MINERAL RESOURCES.

3. The recent developments of the mineral resources of the South is something which most shows the enterprise and vigor of the men who are active in business. From West Virginia to central Alabama is almost a continuous iron and coal producing region. I saw in Southwest Virginia opened coal mines, where the vein is almost 13 feet thick of superior coal, easy to reach and to mine. I saw in Alabama a "mountain" of red hematite iron ore, which was being quarried like our rock ledges, after a superincumbent mass of earth was stripped off. For 35 to 40 cents per ton this ore is mined and put into cars. Iron ore and coking coal and limestone for flux are next door neighbors in many places; all of them are in profusion and are easily mined. The natural advantages for iron production are not surpassed, if they are equalled, anywhere else. The iron "boom" in the South is no "boom" in the sense that it is speculative and transient. For over a dozen years it has been developing steadily and successfully. I saw 20 new furnaces in progress, some just begun and some most ready to go into blast; each one is the token of success already gained in the manufacture of iron in this section; new furnaces are not



experimental. Hardly that, one thinks, when he reads the legend on the large buildings at South Pittsburg, namely—"the Argand Stoves and Ranges," Albany, N. Y., is moving South. There is right here the sure pledge of the immense establishment of wealth-creating industries in the South. A giant does not lie down to rest just when he finds out how strong he is; he wants to use that strength which is a joy to him. The pig iron must be made into all the products which are used.

#### FACILITIES FOR TRANSPORTATION.

4. The South was never in so good shape as it is now in respect to transportation. The railroad properties which I saw are generally in fine physical condition; they are well tied with steel rails, well ballasted and thoroughly well equipped, though few roads have enough equipment for their present traffic. One of the evidences of the industrial activity of the South is this fact that the railroads are taxed to their full capacity and beyond by the business which is offered to them. And their facilities and mileage are expanding steadily to meet the requirements that are made on them by these growing industries and commercial activities.

Very naturally this situation is prolific of new railroad enterprises in the South as in other portions of the country. It is said that 19 new charters were issued in Tennessee and Virginia to build new lines to Cumberland Gap. But it is doubtful if more than one road will be built to that place for the present by any of these companies, namely—a road from Knoxville to the gap, where it will connect with the Louisville & Nashville system and with the Norfolk & Western road. The crop of charters is larger in the South than that of railroads. There is little prospect of immediate excessive railroad building in the South, because the public that has money are not willing to buy railroad securities as indiscriminately as they have done heretofore. But such failure of ambitious schemes will scarcely have a very depressing effect on the business of the South. The extension of old lines and the requirements for repairs will cause a healthy demand for all the materials manufactured in the South.

#### ADEQUATE LABOR.

5. The South has fair supply of labor to meet the demands of present industries which is tractable and trustworthy. I found that the Southern man who is engaged in industry pays a warm tribute of praise and appreciation to the colored laborers. Ante-war delusions about the negro are scattered. Everywhere the black man is at work. I saw him on the railroads, in the furnaces, in coal and iron mines, in cotton compresses, at freight terminals, at warehouses, at cooking ovens, on farms, at teaming, etc. The negro is at the front in the manual work in the South. For such service he is "a favorite," and he is doing his part well in all the region which I saw. A gentleman who is engaged in lumbering in lower Alabama said he had employed colored men largely for 18 years in his operations, and had found them honest, capable and loyal. Some of his hands have served him the whole time, and a few were receiving \$15 a week wages. He found that who so treats the negro fairly and justly and keeps faith with him need have no trouble with his help, and will get good work done. This opinion was confirmed by Prof. Cravath, of Fiske University, in conversation with him.

#### THE BUSINESS MEN.

7. There is a new development in the South which is a prime factor in solving the problem of the future, but which is not generally recognized as a distinctive feature. This new product is the host of active, plucky, pushing, wide-awake business men. I saw the traditional Southerner very rarely. These business

men are very like our neighbors of the same class in the North and West. They dress, "talk business" and work like our people—they are keen, have grit, earnest belief in their position, great faith in the future, with the determination to win success. This body of men are the leaders of the New South, the directors and promoters of this grand industrial development, which has come and is moving forward in a rapid pace. These men have the same mettle that was shown valorously on many a battle-field in the war. And "hath not peace her victories, no less renowned than war?" The South replies to-day.

With her superb natural resources, with most extended and still extending means for transportation, with tractable and loyal laborers, with a steady accretion of immigrants, it seems to me the future of the South is secure in the hands of these men, who are the finest product of the New South, who have so sturdily put their hands to the plow and are facing forward with cheerful confidence and high hopes.

#### PROVISION FOR EDUCATION.

8. I was gratified to see the provision which is made in the cities, both the large and small, upon a liberal scale, for the education of the children. I have seen this prominent feature in the West, but the difference between Iowa and Missouri 20 years ago was very marked. But where I went the care now shown in this way is conspicuous. For example, Nashville has as fine a school "plant" for its children as any similar city. Birmingham has made ample provision for this purpose, and its buildings are especially fine. In the new city of Sheffield, Ala., there is as complete and attractive a new school-house, in a fine location, as one can find in a New England village of 8,000 people. I could not fail to note this point, that the "new" Southerners, whom I have described, are building so well and so broadly for a better social condition than once prevailed there. They aim to make money; but they have come to stay, and they are also striving to better all the conditions of life in which they live and in which they propose to remain.

I find a general recognition of the conceded fact that freedom is a great boon, a grand benefaction in the opening of opportunities, which were not to be reached before. And the men who now stand in the front in work and in execution of new enterprises are manfully grasping these opportunities and seeking to build soundly and strongly as their brethren in the North and West have built. It is a fair field—man competes with man, enterprise with enterprise, as Judge Schoonmaker says. In view of the present occupation and characteristics of the dominating Southern man, of the commingling of the people of our whole country to a degree that never was so practicable and frequent as it is now, it is as sure as the flight of time that a few years hence will see such a homogeneous people in the nation as was never seen before, and the foundations of the Union will be so deeply laid in their instinctive consent and patriotism that they will not be shaken. Who shall grudge these men the full fruition of their worthy desires, of their new hopes and of their sanguine faith in their land and in themselves? Not I, for one.

#### SPECULATION IN THE SOUTH.

9. "But is there no speculative booming?" says the sceptical inquirer. Well, yes; are not these men Americans? Excessive speculation in land is not general. Values in corporate enterprises are not widely inflated. In many points in the South like Memphis, Louisville, Nashville, Chattanooga, Montgomery, Mobile, Atlanta, New Orleans and Knoxville, there has been a large increase in the values of property. But the increase in population, capital, business and commerce warrants the in-

crease in values. In some of these cities property was greatly depressed a few years ago below normal values. For example, Memphis was smitten by pestilence and was decimated by that scourge, and was forsaken by four-tenths of its survivors. Municipal debt in Memphis and in Mobile was like a mill-stone upon the necks of owners of property; for a buyer of real estate could not learn how great the lien upon it was on account of that public debt. This is cleared off by compromise and settlement, values here have had a rebound from special depression.

The success of the Elyton Land Co., which owned several thousand acres of land at Birmingham, Ala., has caused many similar land companies to be formed in the South. Lands often are marked at what seem to be high prices. And these companies have not generally sold any large amount of land to the public. Some of these will have to wait. The Elyton Co. was organized in 1871 and saw many vicissitudes before success was achieved. Some of these companies will fail, it is likely, with some loss to their promoters, but it will be small and will affect but few. Real estate speculation in town lots has not run so wild in the South as in the Northwest and the West. Birmingham is an exception. It has outgrown its own ideal. "I am amazed," says Mr. Norton, "everytime I visit the place, to see the continual improvement and development." There is less speculation now there than a year ago, when prices were, perhaps, at their maximum. Prices have not receded, but there is less activity in land sales.

#### SOLID WEALTH ACCUMULATED.

The changes in the South in values are substantial, and the appreciation real. Conceding the fact of some speculative operations, the creation of actual wealth is clear. For fifteen years much capital has been accumulated in the South by Southern men in business. Col. Sloss, of Birmingham, said that the bulk of the money invested at that place and its vicinity is Southern capital. Such gains have been reinvested in business undertakings, in productive industries, into new instruments to create wealth than into speculative ventures. These enterprises aim to develop and to put to use the wonderful natural resources of this region which have lain dormant for a long period. Improved farms, diversified crops, better methods of cultivation, cotton mills, cotton-seed oil mills, mining coal, iron, zinc, lead, quarrying marble and other building stones, building furnaces, rolling mills and foundries, machine shops and tool factories; all these are not speculations in any sense. These results are great. In Jefferson county, Ala., in which Birmingham is located, the taxes collected in 1873 were insufficient to meet the expenditures; in 1897 the tax assessment is on a valuation of more than forty millions of dollars. Twenty-nine on real estate and almost eleven on personal. In Birmingham the assessment valuation is not over 40 per cent. of the real value. The tax rate is 90 cents.

The great majority of the industries in the South have been started upon a sound basis. If they shall be conducted on business principles, they will be very prosperous, because the available native resources and advantages are admitted. The South is now attracting outside capital and immigration as it has not before. It is coming into the fuller possession of the means which are most useful in the normal development of its powers. The effect is already in sight; the South is upon the threshold of a future career more promising and brighter than it ever saw, or that its most sanguine son ever dreamed of twenty years ago. Is this horoscope too rosy? I will abide the event with confidence.

I write at length, because hosts of men in our country are to-day studying this phenomenon of "the New South." They wish to know its characteristics and its tendency. I have sought to help them form an intelligent and discriminating judgment which may stand securely, because it is based upon the facts, upon truth.

HENRY L. LAMB.

WAVERLY, N. Y., Dec. 2, 1897.

Editor *Manufacturers' Record*:

In answer to your very courteous inquiry as to what are my impressions regarding the industrial growth already made by the central South, her resources and her future, allow me to say, as briefly as possible, that in my judgment, while there is foundation for present and future wealth and greatness of grand proportions, there are some dangers which if seen and realized in time, can be shunned.

1st. I regard the development already made in some places as marvelous and in some others it is but the beginning of a prosperous future. A new spirit seems to have been breathed into Southern business men, and the enterprise of the North and West, their ceaseless activity and the energy and skill and money which have made them great hives of industry, has extended south of the Ohio river and we are becoming one people, a homogeneous nation, more truly than ever before.

2d. The South certainly possesses material resources of an extent of a higher character and of a greater variety than her own people, I think, even imagined twenty-five years ago. Certainly far in excess of what the rest of the country then knew or even dreamed. Forests and coal beds of vast extent, yielding fuel and timber for years to come; quarries of limestone and granite and marble, of wonderful beauty and purity; beds of clay and sand and ochre, and last but far from least, vast deposits of iron ore of various kinds. These are a part of the mighty forces nature has intrenched in her hills. This new spirit which her people bring into these new enterprises aided by the fellowship of North and West, a faith in themselves based on a knowledge of the solid foundations beneath them and a determination to succeed, seem to me to make it certain that the coming century will be the most marvelous in its results that the world has seen.

3d. As to the future of the South; here is the danger. The career of Birmingham has stimulated the formation of many land improvement companies with a furnace company attached, whose first object is to sell land, and whose second is to make pig iron and market it in the North and West. The result of this is as the boys would say, Birmingham is being "tried on" all over the iron-producing portion of the South. Some of these new "cities" will succeed, some will make but a slow and stunted growth and some will probably fail altogether and disappear. This epidemic of land speculation, with ore beds and furnaces for a leverage, is to be deplored. To check it and put growth and development on another foundation, I regard as doing not the South only, but the whole country, a favor.

Next, making cheap pig iron and throwing it on the markets of the North and West is not going to make the South rich and great. For years cotton was king and ruled with the sway of a despot. He had the great North and Europe too for his market, yet he did not and could not make the South rich and great. Iron cannot accomplish it if he sits for a century on this abdicated throne. A variety of industries must work it out. Factories to work up the cotton, mills to grind the corn, cattle and hogs fattened on it, horses and mules raised, rolling mills, foundries, forges; everything to work up in every way this iron made out of Southern hills



is what the South requires to become permanently, grandly, rich and great. These things, built up on a soil so generous and fertile, that even to the careless, ill-directed agriculture of the past has responded with splendid bounteous harvests, will put these States quickly into the front rank.

The North and West cannot absorb any great increase in the production of iron. Her own furnaces can and will produce iron at a cost, which, when freight is added to Southern iron, makes them successful competitors. If we could utilize all this increase, turning it into rails, wheels, machinery and castings of a thousand forms, it would help to build up and enrich the North and some of these products would return South to double-track her trunk lines, furnish equipment for her railroads and factories and harvest her fields. All this she should do herself and gather to her inviting soil and climate the restless thousands who, with brain and muscle and gold, have poured for a quarter of a century in almost unceasing flow over the great Northwest. This she can do now as never before.

Another very important point seems to me, and I close. The South pre-eminently wants, and the whole country will aid her in attaining, markets for her surplus in Mexico and the South American States. England and France now very largely monopolize these great, constantly increasing and well paying markets. At least one-half of them belongs to us and we should have them and should begin now. The Ohio and the Mississippi, the Tennessee and the Cumberland, every line of railroad reaching to the gulf, Galveston and New Orleans, Pensacola and Mobile, all beckon and invite and point towards these great southlands. Shall we not arise, enter in and possess the land?

MOSES LYMAN.

LOBDELL CAR WHEEL COMPANY.

WILMINGTON, DEL., Dec 2, 1887.

*Editor Manufacturers' Record:*

In reply to your inquiry as to what I think of the industrial growth and resources, and the future of Alabama and other Southern States, I would say that I have long been favorably impressed with the mineral resources of the Virginias, western North Carolina, northern Georgia, northern Alabama, Tennessee and Kentucky; but on my recent visit with the members of the United States Association of Charcoal Iron Workers to Nashville, Decatur, Birmingham, Bessemer and other places, I was surprised at the extent of the developments that have been made and those that are now being made.

With regard to the future—in my opinion that greatly depends on the policy of the government and on the action of Congress. If free-trade—as many would make it—is to be the policy, and we are to have a reduction of duty on iron and its products, the prospect for the future, for the South as well as for other sections, is not bright; the increase in the production of pig iron which the thirty or more large blast furnaces in course of erection will make will—together with the amount now imported—increase the amount of iron beyond the ability of the country to consume, and must result disastrously. But if the duties on iron can be so adjusted as to stop the enormous importation of iron and steel and articles made from them, amounting, I believe, to 1,500,000 tons, a home market will be provided, and the South will have great prosperity, such as has never before been known. Some may think that a foreign market in South America and other places may be found for the surplus, but with all the great resources of the South she will not be able to manufacture so cheaply and pay the cost of transportation as to be able to drive England, Belgium and other nations out of the markets of the world, which

are now fully supplied and can not take more.

What the South wants to enable it to develop its immense resources is intelligent, educated, well-paid labor, free schools, a home market, and protection against cheap foreign labor; with these, with her abundant resources and her genial climate, she will become the most prosperous part of the grandest nation on the globe. GEO. G. LOBDELL, Pres.

BOSTON, Dec. 8, 1887.

*Editor Manufacturers' Record:*

In my recent trip I merely passed through Memphis and Birmingham. I did not remain long enough to form any just estimate of the industrial growth of these two flourishing towns, and can, therefore, only say that my impressions were most favorable. The future prospects of Memphis seem to me as promising as that of any Northern city. It is destined, I think, to become the most important center of the cotton trade. It is evidently growing rapidly, and has become a railroad center of great importance.

As for Birmingham, it is difficult to estimate the future prospects of a town which has sprung into being within two or three years, and where, by the spring of next year 16 huge blast furnaces will turn out 1,800 tons of iron per day. If the beds of coal and limestone and iron ore are as inexhaustible as the inhabitants seem to think, it must fulfill the expectations of the most sanguine, for it has at its doors the raw material on one side and endless supply of black labor on the other.

T. JEFFERSON COOLIDGE.

THE SOUTH A REVELATION TO HIM.  
CATLIN & CO., NEW YORK & BOSTON  
NEW YORK, Dec. 8, 1887.

*Editor Manufacturers' Record:*

I can only say in a few lines that my late trip South was to me a very interesting and instructive one. It was my first visit to this section and was, therefore a revelation to me. I saw enough to satisfy me of the great natural resources of the country, and that enterprising and far-seeing men are contributing their brains, money and work to develop them. With a pleasant climate, a hospitable people and a country that will yield to every worker good returns for his labor, the growth of the South is assured and a promising future is before it.

LOWELL LINCOLN.

THE FUTURE DESTINY OF THE SOUTH  
ASSURED.

KUHN, LOEB & CO., 30 NASSAU STREET.  
NEW YORK, N. Y., Dec. 8, 1887.

*Editor Manufacturers' Record:*

I have your communication of the 7th inst., requesting me to give you the impressions which I have received on a recent tour to the South. My trip, which was made upon the invitation and in company of the officers of the Norfolk & Western and Louisville & Nashville Railroad Companies, embraced a tour from Norfolk, as our starting point, through Virginia, Tennessee and Alabama. I was deeply impressed with the development which has been made in these regions during the last five years, and while the land speculation, which is more or less going on at every point in the South, will probably receive a set-back, the basis for a healthy continuation of the development no doubt exists. It is indeed surprising how the enormous mineral wealth of Southwest Virginia, Tennessee and Alabama, surrounded by the most favorable conditions for its development, could have been permitted to lie dormant for so many years, but I doubt not that, since it has now been begun to be developed in a sound business-like manner, the new era, which is only just dawning, will lead to the establishment of many manufacturing interests in these sections, which in time will outdo those of the Eastern States; indeed, I would not be surprised if the time will

come when the facility and cheapness with which iron can be made in the South will compel many of the Northern furnaces to shut down. Free labor has become a blessing where slavery was a curse, and, while there may be temporary set-backs, the future destiny of the South, as a great manufacturing section, appears to be assured.

JACOB H. SCHIFF.

R. J. KIMBALL & CO., BANKERS AND  
BROKERS.

NEW YORK, Dec. 9, 1887.

*Editor Manufacturers' Record:*

The party of which I had the honor and great pleasure of being a member were the guests of the Hon. Eckstein Norton, president of the Louisville & Nashville Railroad, and the Hon. F. J. Kimball, president of the Norfolk & Western Railroad. The object was not for the purpose of making large investments, as some seemed to think, but as the different members of the party were large holders of the bonds and stocks of the railroads mentioned, or the representatives of such, the officers gave them the opportunity to see the properties and the developments of business on the lines of their respective roads. To say that all were surprised and delighted is to put it too mildly.

The cordiality with which the guests were received, not only on their own roads, but on the Nashville & Chattanooga, Memphis & Charleston and others, shows the high appreciation of these excellent managers of the properties by the officers under them.

The physical condition of the railroads, the fine ballasted road-beds, good equipments, engines, cars, &c. were not in any way behind the leading properties at the North, and are in keeping with the wonderful improvements going on in the "New South."

Our interest began in the striking prosperity so well under way throughout Virginia, on the line of the Norfolk & Western road. The managers are alive to the necessities of the times. The new coal and iron mines open up immense resources of wealth, but which were of no use without proper transportation facilities. The grand mountains and valleys, its beautiful rivers reminded us of new England. The railroad is reaping a large reward for its faithful management and good work.

The new business enterprises, the foundation of the prosperity of most of the places where we stopped, rests upon the iron and coal interests more than any other, and, speaking for myself only, it seems they are able to manufacture iron and pay good wages successfully in competition with any portion of the United States.

The fact that most of these great properties are owned by Southern men with Southern capital, where their homes and all their best interests lie, the readiness with which the laboring element, especially the colored men, become skilled in mining and manufacturing was also a surprise and gratification.

The wonderful "booms" in real estate, of which we have heard so much, is more or less true, but many of them are already collapsed, not to the ruin of the places where they are situated, but rather to the benefit of some of them, because prices have fallen low enough; so much of it can be used for business purposes and residences now that could not be touched in the days of "Arabian Nights" profits (on paper). And if there should be a readjustment of values of some of these companies, we are informed that no banking, manufacturing, mercantile or other interests are based on the very high prices that prevailed at one time. That those prices should have gone higher than they would continue is only natural when we know that where a few years ago barely hundreds lived and no manufacturing, now

there are thousands and even tens of thousands of people and millions of money producing wealth from the earth, as much so as though its value was of gold itself.

Some of these land companies deserve the highest praise for the manner in which they have re-invested the profits in building beautiful cities, with fine streets, public buildings, parks, &c.,—delightful places for permanent residences.

The hospitality extended to us in all the places we went was only such as one might expect from the typical Southern gentlemen. It was cordial and warm-hearted. We met them with great pleasure, we left them with regret, feeling that frequent interchange of visits between people of the North and the South would result in the formation of a huge mutual admiration society (not limited).

ROBERT J. KIMBALL.

HARTFORD, CONN., Dec. 10, 1887.

*Editor Manufacturers' Record:*

It was my good fortune some six months ago to meet in central Alabama Hon. Wm. D. Kelley, of Pennsylvania, who had been spending some weeks in the South, and to talk with him of the wonderful developments that are being made in the mineral resources, particularly of the State of Alabama. While I had before looked over the State to a certain extent, it seemed like a fairy tale, as Judge Kelly expressed it, to hear him talk of what he had seen, for I then had only a crude idea of that State's great mineral wealth.

During the early part of November last I spent some two weeks in again looking over central and northern Alabama, and to one who had not familiarized himself with the possibilities of the State, a run through it will prove marvelous. Coal and iron ore are the basis of the great wealth, and clearly it is only recently that the extent of the coal fields and ore beds have been realized by people at the North. Agriculture has not received proper attention, and it is to be regretted that what seem to be fine farms are only indifferently cared for. Large and valuable tracts of timber have been overlooked, as it were. Limestone for fluxing iron ore is often found contiguous to ore beds and furnaces, making it possible to produce iron at the lowest cost. Recent developments in the coal fields show that coke for making iron can there be made equal to the celebrated Connellsville coke. The South realizes that industries should be started which would manufacture from its cotton, iron and timber, articles heretofore made at the North, as is evidenced by the many new iron and wood-working establishments and cotton mills. There has been a boom in real estate, chiefly in city lots in new localities, but the now recognized flourishing cities are sure to grow by reason of the large amount of capital invested in new manufacturing plants.

WARD W. JACOBS.

ACCORDING to the Iron and Steel Trades Journal, of London, "furnace slag is being used in the making of road metal and paving flags. In the production of the latter the method followed is to run the liquid slag direct from the furnace into cast iron moulds which slightly taper towards the top. The mould has no bottom, but stands on an iron trolley, so that when the slag is sufficiently set, it can be released and the mould is ready to receive a fresh charge. The freshly moulded block is pierced, and its interior contents, still liquid, are allowed to run out. The block is then covered with cinders and allowed to cool gradually. We have seen these slagstones laid in a London suburb, and they look neat and durable. They are much cheaper than either the blue-lias or slate paving-stones, and are likely to come into general use. If our steel makers do not make a profit on steel, they may find fortunes in the bye-products."



## BIRMINGHAM, ALA.

A Great Mineral, Industrial and Commercial Center of the South.

Resources, Advantages, Future Prospects and Accomplished Facts.

Practical Hints to the Capitalist, Home Seeker and Investor.

[Special correspondence MANUFACTURERS' RECORD.]

LAKE VIEW HOTEL,  
BIRMINGHAM, ALA., Dec. 1, 1897.

During the last twenty-five years the growth of the South has been full of peculiar dangers and difficulties. The progress of commercial thrift, latent energy, and the sudden change from one line of industrial movement to that of another, has been wrought with no little degree of embarrassment. First the want of capital, and second a lack of knowledge, have been the chief stumbling blocks in the way of progress and development; and yet, perhaps, even with these drawbacks, the South has accomplished as much, and even more than was anticipated. Surely, we have cause to rejoice in the marvelous growth of the South during the past quarter of a century in many elements of prosperity.

Probably one of the greatest difficulties attending our Southern development was to be found in the policy, which refused to recognize the fact that the character of our institutions has entirely changed. While other sections, taking lessons out of our experience, have been fostering manufactures and improving the new processes, by an almost feverish activity in the adoption of new ideas, we have been too often content with old methods and antiquated opinions. Yet, with years of training in one channel, with instincts handed down from generations back, with ideas running smoothly along in one groove, a silent change, broad and deep, has taken place; and the notable thing about it is that it is silent and spontaneous.

HERE WE HAVE AN ILLUSTRATION IN POINT.

Take the city of Birmingham of to-day and compare it to the place of settlement years ago. What do we find? A bee hive of commercial thrift and industrial enterprise, brought about by new methods, new innovations and natural adaptations.

The proof is conclusive. The valuation of property for taxable purposes in the city of Birmingham in 1881 was \$2,953,375.37; in 1897, \$33,019,485.00.

## ANOTHER TANGIBLE DEMONSTRATION.

The population of Birmingham fifteen years ago was probably a baker's dozen; to-day 45,000 souls move and have their being in this great industrial center. Here are the facts as they exist. Now, to the causes leading to the growth of this city, the natural causes as they have existed for years awaiting the germ-power of development.

FIRST.—The close proximity of the raw materials, especially of iron ore, stratas of which run through the southern suburbs of the city. The veins of red hematite iron ore running in unbroken threads for ninety miles, the combined thickness of which will average thirty feet.

SECOND.—The easy approach to the Warrior coal fields, distant six miles from the city, containing from 25 to 30 feet of coal measure.

THIRD.—A general diversion of Southern energy from agricultural pursuits, the professional and small mercantile interests, to the industrial methods and requirements of the day.

FOURTH.—The railway facilities practically put here by far-seeing practical rail-

road men. The only city in the South where the railways have sought a place without local aid, and where the roads have actually paid for rights of way for places to build depots and machine shops.

FIFTH.—A city where the chief land companies have established themselves upon a true business basis, and have followed correct business methods in the fostering and upbuilding of industrial enterprises. These are a few of the actual causes of development. Let us see what the results have been. Taking the official records of Jefferson county, which I examined carefully under the guidance of the tax assessor, I find the following pertinent figures, showing a most healthy growth:

Total assessed valuation of real estate for Jefferson county:

1881.....\$2,008,515 81  
1897.....29,259,000 00

Total assessed valuation of personal property for Jefferson county:

1881.....\$1,833,445 37  
1897.....10,985,280 00

Total assessed valuation of real estate of Birmingham district:

1881.....\$1,083,436 00  
1897.....23,054,568 00

Total assessed valuation of personal property of Birmingham district:

1881.....\$1,370,949 37  
1897.....9,064,507 00

Total State Tax:

1881.....\$33,253 98  
1897.....231,601 76

Total County Tax:

1881.....\$28,331 21  
1897.....100,319 58

Couple with these figures the fact that this is only a showing of a beginning what may be expected in the near future of this place, watered by majestic streams, in the center of mineral treasures, hidden wealth, and fruitful with the raw material at the very doors of the workshops. Indeed, Alabama has a destiny to fulfill, in the glory of which no single city can be left out. Her beds of iron ore, and rivers, her hills and dales, her vast forests, her natural advantages point to a future of crowded cities busy with trade, to a future of high farming and of happy homes of ease and refinement.

Is it, therefore, any wonder why this typical city of the South has pushed forward with such marked advancement; so outstripped her nearby neighbors in all the elements which go to make a place the attractive and objective point of the capitalists, the investor and the home seeker? The same causes for great industrial centers existed in many places in the South as they existed here; but there was a lack of that public spirit, enterprise and faith in the work of the hour which has been so grandly and beautifully illustrated in Birmingham.

## BIRMINGHAM'S FREIGHT BUSINESS.

The following carefully prepared table will give some idea of the amount of business being transacted every month in the city of Birmingham. The bulk of business handled by railroads is always a fair and reliable index of a city's growth, especially when building material forms a conspicuous part of the freight transactions.

The information contained herein was cheerfully furnished your correspondent upon application to the freight agents of the respective roads here mentioned, and is especially suggestive of the wonderful strides this section is making in all matters pertaining to the upbuilding and advancement of the city. Only a partial list of the chief commodities is given herewith:

LOADED CARS RECEIVED AND FORWARDED AT BIRMINGHAM, FOR THE MONTH OF OCTOBER, 1897.

	Loaded cars received and forwarded from Bingham.	Lumber.	Brick.	Ore.	Coal.	Coke.	Cement and Lime.	General Mfgs.
Louisville & Nashville R. R.....	5267	197	220	943	524	306	110	460
Georgia Pacific R. R.....	2029	280	159	174	180	234	60	720
Alabama Great Southern R. R....	2694	185	375	275	450	100	122	1085

Thus it will be seen that during the month of October there was 9,980 car loads

of freight received and forwarded from this city by the three railroads above mentioned. Averaging a freight car at \$20 per car for freight rates, this would show \$199,600 paid out monthly by the Birmingham merchants for freight alone, and for one year \$2,395,200. The number of car loads of lumber, brick, cement and lime received here, proves conclusively the activity in the building line, and is a happy augury of the wonderful and continued growth of this city. Surely these figures are solid and convincing proofs that the city of Birmingham is not a laggard in the race for supremacy as the industrial center of the new South.

This table shows only the inward and the outward freight from the city of Birmingham, and does not include the business to and from the mining and manufacturing enterprises in the immediate vicinity of Birmingham, and which are justly regarded, in speaking of the volume of business in this locality, as a part and parcel of the Birmingham district.

What the South needs more than anything else is men of action, men who anticipate events and take advantage of them; not men who dream of past days and mourn over wasted opportunities. Says Carlyle: "Two men I honor, and no third. First, the toll-worn craftsman; second, the inspired thinker, who conquers heaven for us." These are the type of men we need to give new life and zest, new impulses and better methods to our country in her developing periods. Birmingham has felt the influence of such men, and to-day, she rejoices in the fact that to such agencies is much of her real and substantial growth attributable.

## A FEW FACTS FOR THE CAPITALIST AND THE INVESTOR.

Birmingham to-day presents wonderful advantages for the inauguration of large and smaller industries which can be made to pay from their inception. It is a point where everything seems to radiate, expand and grow. Here is probably the best location for cotton mills in the State, because cotton mills North and South are finding that the steam power is more desirable than water power, on account of its greater regularity and freedom from various contingencies. For instance, take the mills in Georgia and South Carolina. Their coal costs from \$3.30 to \$4 per ton. Coal for steam purposes can be delivered at the cotton mills for about \$1.25. Here is a difference of \$1.05 to \$2.75 per ton in fuel which could be saved in Birmingham. This represents a difference in a large cotton mill of from \$25 to \$30 per day. Quite an item in saving. Then, being in close proximity to the cotton fields, with cheap railway facilities, this place has two other advantages which must not be overlooked.

Then, Birmingham is situated in a belt of cotton country drained by the Louisville & Nashville, the Georgia Pacific, the Kansas City, the Georgia Central, and the Alabama Great Southern, where the fleecy staple can be placed at the mills at a comparatively small cost. Further, within a radius of fifty miles from the Magic City, there is probably grown 200,000 bales of cotton yearly, which naturally ought to find its market here, representing an annual cash business of \$6,400,000.

Birmingham has a large laboring popu-

lation; but there is a large female class of workers out of employment who could easily find profitable and pleasant employment in cotton mills, provided such mills could be established; and there is just now a most excellent opportunity for capitalists to invest in this especial line, and at great advantage.

The soil near Birmingham is all that could be desired. There is every variety of it, and each variety can be successfully cultivated. There is not an acre of land near this city that is not rich in the soil that brings to intelligent labor abundant harvests. Inasmuch as the railroad system is penetrating every section, it is, therefore, an easy matter to get the products of the farm, the garden and the orchard to market. The demand for these products is growing. Birmingham could well support, at least, one hundred truck farmers. There is to-day a great disposition to buy land in small lots, and farmers who live at a distance, and who may wish to avail themselves of the great opportunities which Birmingham now offers to intelligent, energetic and thrifty men of their calling, will find no difficulty in procuring homes at small cost here and markets for their products.

Another great advantage for the capitalist, is the various channels in which money may be invested in the smaller industries, where the raw material is so abundantly supplied. For instance, Birmingham offers a splendid field for a large pottery and glass works, shovel and nail factory, spike factory, plow and spade factories, and other manufactories where the crude iron is required. How much better to utilize the pig iron in our midst in the manufacture of these articles, instead of sending the raw material north and having to pay an excessive price for the goods when they reach us here. I predict that any industrial enterprise, where iron enters into its manufacture, that is started in this immediate vicinity for the next quarter of a century, will pay and pay handsomely. It is the veriest folly for one to kick against natural advantages, and to distort nature in her means of natural supplies, as it would be for one to discountenance the assured fact that Birmingham is to become one of the greatest work-shop and industrial centers of America.

## A WORD TO HOME SEEKERS.

To all who are seeking a pleasant and equable climate, Birmingham offers many advantages. In the suburbs there is much to attract attention, the altitude being 700 feet, the natural drainage good and the water excellent. The land in this immediate section is very good. There is a firm subsoil to it, and with the proper and intelligent cultivation it could be made to produce twice as much as it does now. Few places offer so many and varied inducements to the prospective home seeker, both in the agricultural as well as in the industrial avenues of trade. Lands at comparatively small cost await the intelligent cultivator; mechanical industries invite the sober and skilled workman, while the undeveloped mineral resources await the capitalists and the investor.

## WHY CAPITAL SHOULD LOOK THIS WAY.

Because Birmingham is situated in the midst of the richest and most extensive iron and coal mines in the world. Because the proximity of coal, iron ore, limestone, &c., in the Birmingham district enables furnaces to produce pig iron at about \$9 a ton. As a railway center, Birmingham enjoys facilities equal to St. Louis, Cincinnati, and other great cities of the North. Manufacturing establishments, of whatever kind and nature pay, while there is room for more.

The past five years' growth of the city insures success and the future is rosy with prosperity.



Because money invested here pays good interest with no liability of shrinkage.

The place presents one of the most attractive fields for investment in manufacturing and commercial enterprises, and in real estate of any city in the United States.

#### ACCOMPLISHED FACTS.

Birmingham started with a combined banking capital of \$50,000. In four years it has increased to the sum of \$2,300,000.

From natural water drains with sluggish movement, it has to-day one of the most complete drainage systems (the Waring) in the South.

The building movement at Birmingham during the past six months has been greater than during any part of the history of the city. There are now being constructed and in course of erection over 2,021 business houses and private residence, costing in the aggregate over \$4,000,000.

To show the faith of the investors in Birmingham, they are putting their money in solid and substantial brick structures for business purposes; while elegant, and in many cases palatial residences are being erected in and around the city. This is faith exemplified in work and in the outlay of capital by far-seeing business men.

#### FURNACE PLANTS NOW IN OPERATION AND CONSTRUCTION:

##### PLANTS IN OPERATION.

NAME OF PLANT.	Number of Stacks.	Daily Capacity, Tons.
The Sloss.....	1	225
Mary Pratt.....	1	50
Alcoa.....	2	250
Williamson.....	1	50
Eureka.....	1	150
Woodward.....	1	225
Edwards Iron Co.....	1	40
Total.....	11	945

##### PLANTS IN CONSTRUCTION.

Sloss Iron & Steel Co....	2	250
Tennessee Coal & Iron Co.....	4	600
DeBardeleben.....	2	300
Birmingham Furnace & Manufacturing Co.....	1	125
Pioneer Iron & Manufacturing Co.....	1	125
Total.....	10	1400
Grand Total.....	21	2345

##### YEARLY BUSINESS.

Iron.....	\$12,500,000
Coal and Manufactures.....	12,500,000
Wholesale.....	6,000,000
Retail.....	20,000,000
Railroads.....	3,600,000
Total.....	\$54,600,000

##### FINANCIAL EXHIBIT.

Banking Capital.....	\$5,365,000
Elyton Land Company.....	15,000,000
Other land companies.....	5,000,000
Bessemer.....	2,500,000
DeBardeleben Iron Co.....	4,000,000
Sloss Iron & Steel Co.....	3,700,000
Furnaces.....	6,000,000
Manufactures.....	5,000,000
Mercantile.....	5,000,000
Total.....	\$51,565,000

From a way station of a few years back, it is to-day a railroad center with railways running in ten different directions, and five others in process of construction, making fifteen railroads that will be running into the city in less than twelve months from date.

From the old hackneyed stage coach relied upon for transportation, it is the best provided city with street cars (to its size) of any on the continent, having 25 miles of horse car lines and 52 miles of steam dummy lines.

From one little blast furnace, crude and simple, it has grown until the number now reaches eleven in daily operation, with a daily capacity of 950 tons of pig iron. Ten others are now under construction, which will soon give twenty-one furnaces in blast with a daily capacity of 2,200 tons of pig metal.

Her rolling mill is a monument to the present industrial era of the South's advancement. Seven fine school buildings ornament the city, and make it a place of exceptional educational advantages.

Twenty-five temples of worship lift their spires above the city's din and noise. Four daily and six weekly newspapers disseminate the news. Several lakes and parks with pleasure grounds afford recreation in the summer months.

It has a large and complete flour mill,

operated by a magnificent 125 horsepower Corliss steam engine, which was manufactured at the Birmingham Iron Works.

It has extensive brick and cotton gin and press factories.

It has a large ice factory, and a brewery whose products are equal to those of the great breweries of the Northern cities.

Its manufacturing establishments embrace almost every department, and are rapidly increasing in numbers and capacity.

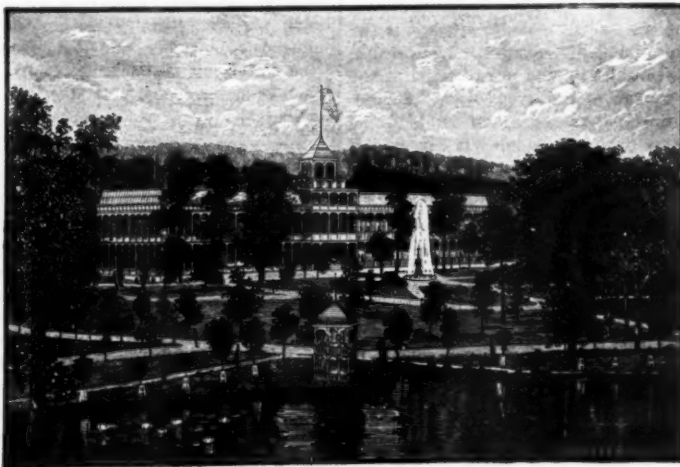
It has four substantial, ably managed banks with immense resources, and a number of other solid financial institutions.

It has capitalists that control millions, and real estate dealers of indomitable energy and almost unlimited resources, by whose untiring efforts millions of foreign capital have been invested here in real estate and in productive enterprises.

With these advantages in the race of commercial and industrial wealth, in a place just stepping out of its swaddling clothes, what must be the result ten years hence?

#### NORTH BIRMINGHAM LAND CO.

Major A. B. Johnston, manager, is doing a noble work for Birmingham in the way of inducing manufacturers and farmers to come southward. This company own and control 1,400 acres of land in the northern limits of the city. Recently this company have built a steam dummy line out to their property, which lies on the line of Village



LAKEVIEW HOTEL

Creek, and is well adapted to business and resident property. Major Johnston is an able manager, as is evinced by the careful, conscientious and diligent work executed by him in the building up of this property, which will, ere long, become an integral part of the city of Birmingham.

#### THE EAST LAKE LAND COMPANY

Own and control valuable lands in the eastern portion of the city, distant about six miles from the city proper, which is accessible by a well-equipped dummy line, which has just been recently completed. Here the home seeker, as well as the investor, will find a most excellent chance to invest his money to great advantage. The location of this property is in a healthy section, with good air and water in abundance.

#### THE NUCLEUS OF A PERMANENT GROWTH.

So much depends upon the foundation stones of a structure, not only in the building line but in the common affairs of life, that when a start is made in any industrial scheme, of whatever kind or nature, one looks to the safety and permanency of such enterprises. Take the Elyton Land Company of Birmingham as an example. Did it not build wisely? The corner stone was laid upon a substantial financial basis. Look to the results of to-day, and see what it has done for Birmingham. Facts are the knock-down arguments against croakers and moss-backism, and here it is illustrated.

Take the wise and business-like policy as mapped out by Dr. H. M. Caldwell, president of the Elyton Land Company, and follow up the plans of this gentleman, matured with deliberation and good judgment, and mark the beneficial results arising daily from this great lever in Birmingham's growth. The liberal and conservative policy in the administration of the affairs of this company has done more to attract attention to Birmingham, than of any other devised and consummated plan of operation.

The very fact that the stock of this company, when Dr. Caldwell took the reins into his hands, was selling only \$15 per share, and from which point it advanced to \$1,250 per share under his management, is proof conclusive that he performed a *coup d'état* in the first flush of his administration. The happily conceived idea of the Lake View hotel, nestling among the everlasting hills on the line of the Belt road, three miles from the city, affording a pleasant summer retreat, was a practical scheme of Dr. Caldwell. The success of the enterprise shows the progressive spirit of the man. From the cut, as shown elsewhere, it will be seen that the Lake View hotel, managed by Ely Spencer, is to Birmingham what the Inn is to Anniston. Besides being a pleasant summer resort in the Highlands, with the placid lake in front, it affords many advantages to the tourists and health seekers not easily found

where can there be found more enterprise, push and energy being directed in the legitimate channels of material development and in the industrial pursuits of life, than one finds in this little giant of north Alabama, soon to become the grand objective point of commercial thrift, manufacturing enterprise and agricultural methods.

When one looks back to find that the past history of this "magic city" has been one of long triumph over obstacles and troubles sufficient to practically annihilate any other than an Anglo Saxon race, he may well say: the destiny of Birmingham is sure to be that of elevation, progress, enlightenment and refinement.

HINTON A. HELPER.

IN discussing some of the absurdities of the suggestions made as to postoffice matters the Nashville American very justly says:

It is surprising what suggestions come from men who don't know what they are talking about. There is Third Assistant Postmaster General Harris for instance, who has a great scheme for changing the manner in which the postage is paid on daily newspapers. For some time past the postoffice department has allowed publishers to send their papers to the train, where they are weighed by some one representing the postoffice. Mr. Harris contends that this is a violation of the law requiring the papers to be sent to the postoffice, and publishers who now have a narrow margin to go on must go to press earlier or miss the mails. But Mr. Harris proposes a change in the law that will be much more serious and embarrassing in its operations. The publisher now sends a wagon-load of mail, going to 100 post-offices. The wagon-load is weighed and a charge of one cent a pound made. A receipt is given for the amount paid, the stamp representing the aggregate amount affixed to the stub and canceled. The stamps serve as a check on the postmaster, who has to account for all the stamps not in his possession or canceled. Mr. Harris now wants to revolutionize all this by having stamps prepared of from one eighth of a cent up, and by having each package, large or small, stamped separately before being sent to the office. To the publisher who sends out a great many single copies, this would largely increase the postage, and a nice time the publisher would have calculating and affixing stamps, where he publishes four, six, eight, ten, twelve, sixteen or twenty pages, according to circumstances. Upon what Mr. Harris bases his opinion that "it would be much more simple and expeditious than the present methods of paying postage," it would be hard for any newspaper publisher to say. It would be a serious matter should these suggestions become law, and not a publisher of a daily paper but will oppose it.

ONE of the most valued publications that comes to this office is the old reliable MANUFACTURERS' RECORD, of Baltimore. It is a journal of purely Southern ideas. It comes nearer keeping posted with the advancement of the South, and does more in a cheerful way towards inaugurating, encouraging and stimulating Southern industries, than any other periodical of which we have any knowledge. It takes pains as well as pleasure in the accumulation of useful information, and can furnish later, better and truer statistics relating to Southern enterprises than any other journal.—Florence (Ala.) Wave.

MANAGERS of mills, factories, furnaces, mines, etc., and parties starting manufacturing enterprises, and needing machinery or supplies of any kind, will find it profitable to consult the advertising columns of the MANUFACTURERS' RECORD. Its pages contain names of the best houses in the country among manufacturers of and dealers in machinery and mill supplies.



# Tuskaloosa, Ala.

\* ALABAMA'S NATURAL PITTSBURGH. \*

**A Railroad and River Town of 6,000 Inhabitants, in the Coal, Iron and Timber District.**

Healthful Location. Salubrious Climate. School Facilities Unequaled by any other town in the South.  
Centre of Education for the State. Seat of University of Alabama. Of State Insane Asylum. Of Alabama Central Female College.  
Hill's Female School. Fine Free School. Churches of all Denominations.

"EXAMINE THE MAP."

+ SITUATED ON +  
**Queen & Crescent**

— TRUNK LINE —

IN THE  
**Warrior Coal Field**

AND ON THE  
**WARRIOR RIVER.**

Only Navigable River touching the  
**Alabama Mineral Field.**

Eight Months Navigation. Being Surveyed  
now to be opened all the year round.  
All Water Navigation to

❖ **MOBILE** ❖  
AND THE

Entire Gulf and Atlantic Coasts.

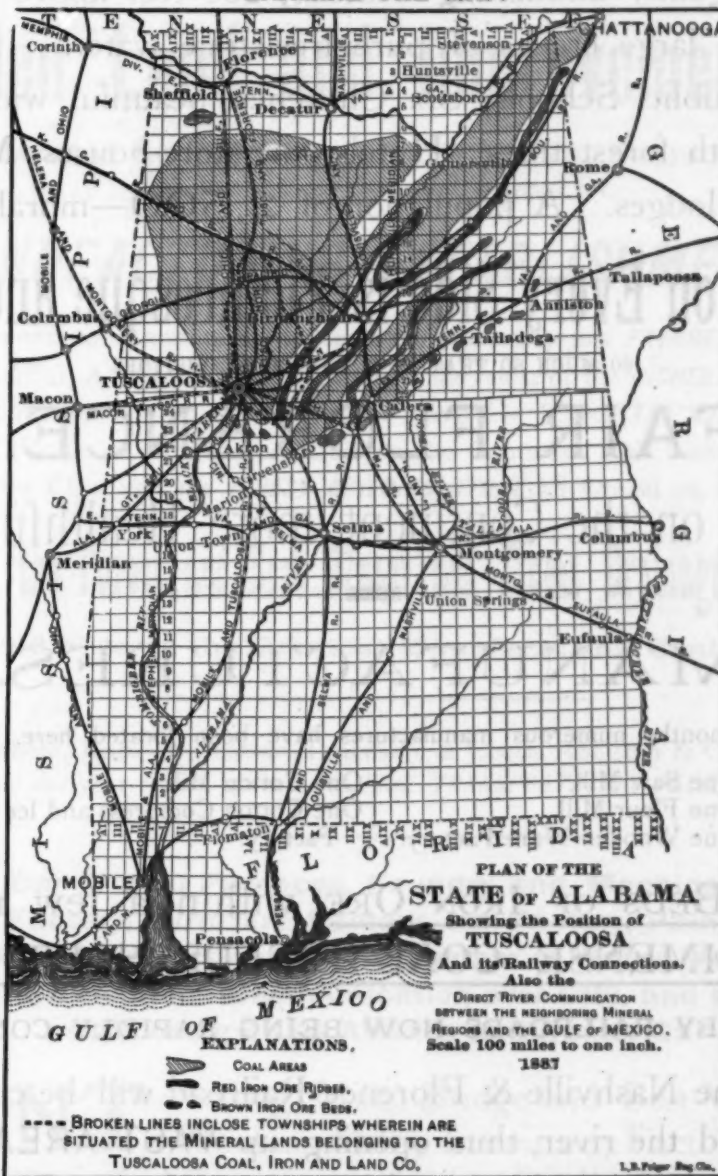
— THE —  
**Tuskaloosa Northern Railroad**

Is now under construction into the  
**MINERAL and TIMBER FIELDS.**

— THE —  
**Macon & Tuskaloosa Railroad**

Will soon be building into the  
**COTTON REGION OF MISSISSIPPI.**

**Fine Farming Region**  
Around and Below the City.



Superior Inducements

AND

\* ADVANTAGES \*

TO ALL

Manufactories Consuming  
**WOOD, IRON, COTTON.**

**FINE COOKING COAL**

In workable veins near city, fully tested.

— The Fire Clay —

Existing in inexhaustible quantities, has been  
practically tested and pronounced  
The Best yet Discovered in the South.

Street Car and Dummy Lines  
NOW BUILDING.

— Water Works and Electric Lights —  
TO BE PUT IN AT ONCE.

**COTTON MILL**  
In Successful Operation.

ALSO  
**LARGE BRICK WORKS**  
COTTON-SEED OIL MILL, &c.

Manufacturers Seeking Locations in the South have here

❖ **THE GOLDEN OPPORTUNITY.** ❖

Many have availed themselves of it, but such is the wonderful richness of the resources of this section that there is

— ROOM FOR ALL —

THE **Tuskaloosa Coal, Iron & Land Co.,**

Owning 4,600 acres of city and suburban property, and 40,000 acres of mineral and timber lands, offers liberal inducements to manufacturers  
to locate at Tuskaloosa, Nature's City, and invites correspondence and the fullest investigation of its claims.

An illustrated descriptive pamphlet sent free upon application to

**W. C. JEMISON,** President Tuskaloosa Coal, Iron & Land Co., **TUSKALOOSA, ALA.**

# Florence, Ala.

## County Seat of Lauderdale County.

At Head of Navigation on Tennessee River, and at Foot of Muscle Shoals Canal,  
which will be open Jan. 1st, 1888.

**SITUATED** on a gently undulating Plateau, 200 feet above high-water mark, surrounded by three large creeks of pure free-stone water. It has a Court House, Two Colleges, Four Public Schools, Six Churches, beautiful wide streets, graded and graveled, and shaded with forest trees; Hotels, fine store houses, Masonic, Odd Fellows, K. of H. and L. of H. lodges. A population of 2,500—moral, social and hospitable.

**The Scenery on Every Side is Picturesque and Beautiful.**

SO MUCH SO THAT IT IS CALLED BY VISITORS

**FAIR FLORENCE."**

There is no Place on the Continent more Healthful and Salubrious.

## MANUFACTURES.

Within the last six months numerous manufactures have been located here, among the number:

Five Large Blast Furnaces.	One Saw Mill,	One Cotton Mill,	Two Brick Machines and
One Rolling Mill,	One Flour Mill,	One Cotton Compress and Ice	Three Hand-Brick Yards.
Three Planing Mills,	One Wooden-Ware Factory.	Factory.	

There are VAST BEDS OF IRON ORE within a few miles North and  
IMMENSE COAL FIELDS SOUTH

ACCESSIBLE BY RAILROADS NOW BEING RAPIDLY CONSTRUCTED.

By the 1st of January the Nashville & Florence Railroad will be completed, making three lines of railroad, and the river, thus opening up VAST AREAS OF TIMBER, IRON ORE, COAL, Marble, Limestone, Kaolin, Fire-Clay, and almost every kind of mineral and product.

THE LANDS IN THE SURROUNDING COUNTRY ARE FERTILE AND PRODUCTIVE.

*All kinds of Grain, Grasses and Fruits grow to perfection. Springs and Water Courses are numerous, and grazing for Cattle is abundant for eight months of the year.*

Pamphlets and maps furnished on application to

# Florence Land, Mining & Manufacturing Company.



# GADSDEN, ALA.

Is situated on the West Bank of the COOSA RIVER, in the midst of the

## RICHEST IRON AND TIMBER SECTION

IN THE FAVORED STATE OF ALABAMA.

### ➤ The Gadsden Land and Improvement Company ➤

Own large tract of Eligibly Located Residence Property in the Most Desirable Part of the City, and have fine location on river and railroad for

### MANUFACTURING ESTABLISHMENTS,

And are offering great inducements to manufacturers to locate their plants in this *FAVORED LOCALITY*. No place in the South has such **Wonderful Advantages**. Situated in the midst of the *RICHEST IRON SECTION* in the *STATE*, at the foot of Lookout Mountain on the banks of a Navigable River, (*THE BEAUTIFUL COOSA*), surrounded by Forests of the Finest Timber on the Continent, with Fine Building and Fire Clay, and the *FINEST BUILDING STONE* all around us, with

**Uninterrupted Health, and the Purest and Best Water and Finest Drainage of any City in the State,**

**Gadsden should become the Greatest Manufacturing Center of Alabama.**

**T**HE Alabama Great Southern, Rome & Decatur, Tennessee & Coosa, Anniston & Cincinnati Railroads, with the ever-flowing Coosa navigable the year round, gives us as *FINE TRANSPORTATION FACILITIES* as any other city enjoys.

We now have Railroad Car Works, Furnaces, Foundry and Machine Works, Saw Mills, Sash, Door and Blind Factory, Furniture Factory, Ice Factory, Paint Mills, Crist and Flouring Mills, Cotton Ginnery, Fine System of Water Works, Electric Lights, Telephone Communication over City, and also to neighboring cities Atlanta and Rome, Ga.

**WE WANT** Rolling Mills, Bridge and Bolt Works, Cotton Factories, Woolen Mills, Furniture Factories, in fact all kinds of Factories, even Coffin Factories, (but we want to ship the Coffins to some of the other booming cities.)

Liberal Grants of Land will be made by THE GADSDEN LAND AND IMPROVEMENT CO. to any of the above-named industries.

FOR FURTHER PARTICULARS ADDRESS

**M. L. FOSTER, Sec. & Treas.**

**THE GADSDEN LAND & IMPROVEMENT CO. - - GADSDEN, ALA.**

POST-OFFICE BOX 145.

# ANNISTON, ALA.

## "The Model City of the South."

**T**HERE is no healthier or more charming place of residence in America than Anniston; built on the slope of one of the highest of the chain of the Blue Ridge in Alabama, it commands scenery that is unapproachable in the State. Nature could not have formed a more beautiful place for man to build a city or given greater natural advantages. The natural drainage is most thorough and complete, while in addition the city is preparing a system of underground sewerage. *A more delightful and invigorating climate cannot be found anywhere:* mild in winter, cool in summer, a thousand feet above the Gulf, with the high and broken chain, range after range in the east, Blue Mountain in the north, Coldwater Mountain in the southwest, make Anniston the *coolest, healthiest and most attractive of any city in the South.* It has the richest agricultural country surrounding and tributary to it in the State, to support a manufacturing and mercantile population. The mountain sides will grow the grape and every kind of large and small fruit to perfection, and the valleys every product of diversified farming. *It is in the heart of the richest mineral district of the South,* and commands the great fields of brown hematite ores on which the great and successful manufacture of iron must in the end depend for quality and profit in every branch of most skillful and best manufactures of iron and steel. It has tributary to it *the best and most extensive pine forests in North Alabama,* that are reached by roads owned and controlled by Anniston citizens, while it has secured to its industries the very best coal mines and coking coal in Alabama. There is no city in America, in proportion to population, that has the manufactures of Anniston, or employs as many working men, or does a larger mercantile business. The industries already in full and profitable operation in Anniston are the **two Woodstock Furnaces** producing six hundred tons of Standard Car Wheel and Malleable Iron per week, and the **two Clifton Furnaces**, tributary to Anniston, producing nearly as much more. The **Car Works** are fully employed turning out forty cars per week, and are introducing new machinery and larger engines to increase their capacity to twenty cars per day. The **Rolling Mill and Car Wheel Foundry and Steam Forge** are among the largest in the South, of a capacity of two hundred wheels, a consumption of 120,000 pounds of metal per day, exclusive of the Rolling Mill and Steam Forge. These works are being enlarged to meet the increasing demands upon them. The **Cotton Factory** is one of the largest in the South, containing 11,700 spindles, and is running to its full capacity, while the foundry of **Murray & Stevenson**, and machine shop of **Pindar & Co.**, and planing mills of **Miller & Smith** and **Farrar & Co.** employ a large number of men and are crowded with work. The new industries that are now under way and provided for will within the next twelve months **Add Four Thousand Additional Working Men to Anniston's Population.** Two of the **Largest Iron Furnaces in the South**, capable of producing two thousand tons of iron per week, are progressing rapidly, and one of the **Largest and most complete Pipe Foundries in the world for the production of Gas and Water Pipe** is under construction,—it will employ nine hundred men.



NOBLE STREET—ANNISTON.

The **Steel Blooming**, for the production of Steel Blooms, is nearly completed, and the new **Fire-Brick Works of Taylor & Sons** are in operation. The **Ninety-Inch Morse Cotton Compress**, with its warehouses, has been completed, and is receiving cotton. Forty thousand bales, it is estimated, will be secured to Anniston from the territory that its system of railroads have opened up. The completion of the **Anniston & Cincinnati Railroad** during the present year, that will be owned and controlled by Anniston's citizens, opens up new territory and forms a **New and Shorter Grand Trunk Line to Cincinnati and the great Northwest, and to the Southwest via New Orleans and Shreveport.**

It is only the profits of business and labor that can add to the wealth of a community, add to or maintain the value of real estate, and add to the prosperity of its people. Having this in view, every industry and business in Anniston is established on a *profitable basis.* All its merchants are doing a large and profitable business, far larger than they prepared for or anticipated; it is the same with the manufacturers, while *not a dollar of debt has been created*, either by issue of a bond or placing of a mortgage on any of its old or new industries, leaving their earnings free from fixed charges that must be paid in times of depression as well as of prosperity. *To the investor, either in business, manufacturing or real estate,* nowhere else are presented opportunities as safe, secure and certain as at Anniston, or where they can rest on as healthy and solid foundation. It has trunk line railroad communication with all parts of the United States, and freight rates with the most favored of Southern cities. Two lines of railroads are owned and controlled in the interest of Anniston by its own citizens. *It has the best system of Water Works,* with the purest well water from three hundred feet below the surface, drawn from white quartz sand and gravel, and distributed through the city, with a pressure of 100 pounds to the inch, from a reservoir always full, protecting the city against fire and giving it the lowest rate of insurance. *The city is practically free from debt, and taxation limited to one-half of one per cent.* *The means for education are the very best.* Public Schools of a high grade are provided. One of the finest and best institutes for Young Ladies has been opened, and a College for Boys and Young Men, to which a School of Technology and Chemical Assay Laboratory have been added, is now nearly completed, and the best of teachers and professors secured for both. There are *Churches for all denominations,* and *Hotel Accommodations that are not surpassed in Europe or America.* The **ANNISTON INN** provides the quiet and comfort of the most luxurious home. *The streets are wide, macadamized, and rolled hard and smooth for pleasant drives.* **STREET CARS AND DUMMY LINES** are being built to different parts of the city, and the **ELECTRIC LIGHT** service enlarged and improved, leaving nothing undone to promote the comfort of its citizens and maintain and increase the value of their property and profits of their business.

The **Anniston City Land Company**, or the **Bureau of Information**, will give any information desired when applied to, and invite all wishing a charming place in which to live, to do business or to make profitable investments, to visit

—ANNISTON.—



# CONSTRUCTION DEPARTMENT.

**WE PUBLISH, every week, a list of every new factory, of whatever kind, projected anywhere in the South; every railroad undertaken, and every mining company organized. This information is always fresh, and, by enabling manufacturers to correspond with the projectors of such enterprises before their supplies of machinery have been purchased, is of great value. Manufacturers will find it to their interest to read this department carefully each week.**

## ALABAMA.

**Anniston.**—A dispatch from Anniston states that the United States Rolling Stock Co., of England, (office 35 Wall street, New York), have unanimously voted to increase their capital stock from \$3,000,000 to \$4,000,000, to build the large car and locomotive works, including a rolling mill, in connection with the Alabama Car Works and Noble Bros. Car Wheel Works, previously mentioned. The capacity will be 20 cars daily, not less than 1,000 hands will be employed, and \$1,000,000 will be invested in the new works.

**Anniston.**—The Anniston Street Railway Co., reported last week as having commenced building their electrical street railroad, will erect their plant corner of Eleventh and Moore streets. They will also establish an electric plant for arc and incandescent lighting and will furnish power for manufactories.

**Anniston.**—The Anniston City Land Co. have organized a construction company to build houses, and will commence work at once. The capital stock is to be from \$300,000 to \$400,000.

**Anniston.**—R. H. Rose and E. H. Jennings, lately mentioned as to erect a large four-story brick building, will commence work about January 1. The upper stories are to be used as an opera house.

**Anniston.**—Isaac Linsky will erect a two-story building and start the manufacture of clothing.

**Avondale.**—Negotiations are being made for the extension of the Highland Avenue & Belt Railroad to Avondale.

**Bessemer.**—The Bessemer Electric Light & Power Co. are erecting a temporary building for their plant, previously reported. They will erect a brick building on Alabama avenue.

**Bessemer.**—W. E. Hartman will establish a machine shop.

**Bessemer.**—Mr. Wood, of Columbus, Miss., will probably start a planing mill and grist mill about January 1.

**Bessemer.**—A grist and hominy mill is reported to be erected. If true, the Bessemer Land & Improvement Co. can probably give information.

**Birmingham.**—W. P. Pinckard and Morris Adler have asked for permit to build a street railroad on Seventh avenue.

**Birmingham.**—A horse-shoe factory is being started.

**Birmingham.**—W. A. Abendroth, J. M. Fisher and G. W. Fisher have formed the Abendroth & Fisher Manufacturing Co., to operate the foundry and machine works of the late firm of Aikin & Lighton.

**Birmingham.**—It is reported that the Kansas City, Memphis & Birmingham Railroad Co. contemplate extending their road to Savannah, Ga., and are making examinations as to route.

**Birmingham.**—The Kansas City, Memphis & Birmingham Railroad Co. are surveying for a branch road to the Coal Creek mines.

**Birmingham.**—The East Birmingham Land Co. will probably build a number of houses at East Birmingham.

**Birmingham.**—The Caldwell Hotel Company will hold a meeting on January 5th to consider increasing capital stock and issuing bonds.

**Birmingham.**—The Eureka Ratchet Nut Lock Company, lately reported as incorporated at Marshall, Texas, to manufacture nut locks, are arranging to establish their works at Birmingham. John W. Parks is president.

**Birmingham.**—The Union Street Railway Company will probably soon begin work on their stables.

**Birmingham.**—The Columbus & Western Railroad Co. (office, Columbus, Ga.) are preparing to build their freight depot and switch yards.

**Brewton.**—R. G. Peters, of Manatee, Mich., lately reported as purchasing and to enlarge the lumber mill of Poley & Plack, have purchased the mill and timber lands of Harold Bros. & Scott for \$55,000.

**Calera.**—The Calera Furnace & Charcoal Co. will probably start an acetate of lime manufactory.

**Clayton.**—An axe-handle and spoke factory is contemplated. J. J. Winn can probably give information.

**Clayton.**—It is stated that all arrangements have been made to establish the guano factory previously reported. J. J. Winn can give information.

**Coosa County.**—Eli Davis, of Birmingham, is preparing to develop the gold and silver ores on his land.

**Cullman.**—The Cullman Land & Improvement Co. have increased their capital stock to \$10,000, previously reported, to sink their artesian well to a greater depth and build a system of water works.

**Decatur.**—The United States Rolling Stock Co., of London, Eng., (office, 35 Wall street, New York,) officially state that their car works, now at Urbana, O., will be moved to Decatur, previously reported. Their capacity is 16 cars per day.

**Decatur.**—The Decatur Cornice & Roofing Co. have been organized to manufacture cornices and roofing, by L. W. Borton, L. H. Borton and J. W. Yates. They are preparing plans for their buildings.

**Fayette C. H.**—It is reported that the Sipsey Coal Mines will soon be developed on a large scale.

**Florence.**—The Florence Land, Mining & Manufacturing Co. are negotiating for the building of a dummy railroad. They have taken steps to secure the building of a fine hotel.

**Florence.**—It is reported that the Curry Compress Company will soon begin to manufacture their presses at Florence.

**Gadsden.**—A meeting of citizens has been held to consider boring for natural gas.

**Helena.**—The Eureka Company, of Oxmoor, have let the contract to build 200 coke ovens to Thomas Purvis, of Oxmoor, at \$20,000.

**Huntsville.**—The Standard Oil Co. contemplate building a warehouse.

**Jacksonville.**—The Jacksonville Hotel Co. have commenced work on their hotel, previously reported. The cost, it is stated, will be \$90,000.

**Marion.**—N. J. Guley has started a carriage factory.

**Mobile.**—F. R. Jones, of Windsor, Vt., and J. P. Upham, of Claremont, N. H., have been prospecting with a view to establishing a cotton factory. They have examined the Sibley Mills (1,500 spindles) which have been idle since 1882, and may purchase and refit them at a cost of \$50,000.

**Mobile.**—It is stated that A. Jackson, of Birmingham, will establish artificial stone works.

**Mobile.**—The City Street Railway Co. have leased a building corner of Royal and St. Anthony streets, and are establishing repair shops.

**Mobile.**—The Gamewell Fire Alarm Telegraph Company, of New York, have made a proposition to put in a fire alarm system to cost \$2,825.

**Montgomery.**—Plans and estimates have been made for the sewerage system, previously reported. Rudolph Herring is consulting engineer.

**Montgomery.**—William Tatum is rebuilding his soda water factory, reported in this issue as burned.

**Montgomery.**—H. M. Hobbie will erect a large three-story brick building to replace the one burned last week.

**Montgomery.**—Griel Bros. & Co. will replace their building, burned last week, with a three-story brick structure. The Figh block, in which Moses Bros. are interested, will also be rebuilt.

**New Market.**—L. J. Hambrick will rebuild his gin, lately reported as burned.

**Pineapple.**—The Louisville & Nashville Railroad Co. (office, Louisville, Ky.) will complete their railroad from Pineapple to Clayton, about 20 miles.

**Sheffield.**—It is probable that English capitalists will erect a stove foundry. If they decide to do anything, Alfred Pariah can give information.

**Shelton.**—Alexander Miller will rebuild his burned cotton gin.

**Sylacauga.**—R. M. Fleet is opening a limestone quarry for the Woodstock Iron Co., of Anniston.

**Talladega.**—The Talladega Brick & Tile Co., recently organized, and the Coosa Valley Brick Co. have consolidated.

**Talladega.**—F. H. Crane, of New York, will start a factory, probably to manufacture tobacco.

**Talladega.**—Edwards & Arnold are corresponding with parties who contemplate starting a soap factory.

**Talladega.**—Pittenger & Crane will start a cigar factory.

**Troy.**—Efforts will be made to form a company to erect a cotton factory.

**Troy.**—\$20,000 has been subscribed towards forming a company to establish a tannery.

**Tuskegee.**—A cotton factory is reported to be erected. D. W. McIver can give particulars.

**Woodstock.**—J. W. Worthington & Co. will complete their contract to grade seven miles of the Birmingham Mineral Railroad extension within sixty days.

## ARKANSAS.

**Atkins.**—A. T. Embry will rebuild his grist mill and gin, lately reported as burned.

**Bear.**—It is reported that the Lost Louisiana Mining Co. will enlarge the capacity of their Moffett smelter.

**Beebe.**—Cyrus Heller has reopened a marble bed and will develop.

**Cabot.**—Neely & Neely, previously reported as rebuilding their burned grist mill and gin, will erect a better building next year and start a broom factory. They contemplate erecting a saw mill in the spring and want to purchase machinery.

**Camden.**—A round-house is to be built by the St. Louis, Arkansas & Texas Railway Co. (office, St. Louis, Mo.)

**Camden.**—There is talk of erecting an ice factory. If anything is done, James S. Holmes can give particulars.

**Camden.**—A stock company will probably be formed to build a large wagon factory.

When anything is done, James S. Holmes can probably give information.

**El Dorado.**—John C. Wright has erected a gin.

**Fort Smith.**—The right of way is being secured for the Fort Smith & Gordon branch of the St. Louis, Iron Mountain & Southern Railroad, (office, St. Louis, Mo.)

**Fort Smith.**—A sewerage system is being agitated. The mayor can give information when anything is decided on.

**Fort Smith.**—The Fort Smith Natural Gas & Power Co. will develop a coal mine.

**Little Rock.**—George Hibbard has, it is said, sold a large tract of timber lands to St. Louis (Mo.) capitalists. They will probably develop.

**Little Rock.**—The contract for paving West Markham street has been let to E. Wiegell at \$16,800.

**Little Rock.**—Howard B. Adams, John B. Jones and M. W. Benjamin have incorporated the City Electric Street Railway Co., capital stock \$200,000. They will soon commence work.

**Pine Bluff.**—The company reported last week as organized to erect an incandescent electric light plant, by W. Y. Wark, of St. Louis, Mo., have decided to begin with a capital stock of \$20,000, instead of \$10,000.

**Pine Bluff.**—A. H. Reynolds contemplates starting a furniture factory.

**Poinsett County.**—Kennedy & Morelock, of Martin, Tenn., reported last week as purchasing timber lands and to erect a stove factory, will move their stove factories there from Martin and add a spoke factory. They want to buy spoke lathes.

**Wilcox.**—A spoke factory is to be erected.

## FLORIDA.

**Canaveral.**—D. P. Weason, Henry H. Harrison, J. T. Bernard, N. N. Penny and Robert Ranson have chartered the Canaveral & South Florida Railroad Co., capital stock \$400,000, to build a railroad from Titusville to Canaveral, with a branch road to the Banana river.

**Chipley.**—A. E. Chandler is adding a planing mill to his saw mill, lately reported, and will soon add a shingle mill and box machinery. He is locating a colony from Indianapolis, Ind., to grow fruit, and expects to start a canning and evaporating establishment.

**De Funiak Springs.**—A. Kellogg will probably enlarge his furniture factory next year.

**De Funiak Springs.**—The West De Funiak Co. are receiving bids for building a new hotel. Frank W. Verse can probably give information.

**De Funiak Springs.**—Work on the De Funiak Springs & Lake Stanley Street Railroad will probably be commenced soon. Frank W. Verse can give information.

**Fort Ogden.**—It is rumored that a beef canning factory will be started.

**Gainesville.**—A party offers to build a \$40,000 hotel if \$15,000 is raised by Gainesville. Mr. Danham can give information if anything is done.

**Interlachen.**—A saw mill is being added to the planing mill of L. S. Hall.

**Jacksonville.**—The bid (\$12,471.41) of the Merrill-Stevens Engineering Co. for the iron work of the jail will be accepted.

**Key West.**—It is reported that plans have been prepared for an immense cigar factory. If true the mayor can probably give information.

**Key West.**—G. W. Nichols will shortly commence work on a large cigar factory.

**Madison.**—J. W. Williams will erect a grist mill and cotton gin.



Pensacola.—The city commissioners have ordered work to be commenced at once on the sewerage system, previously reported. About \$18,000 will be spent this winter.

St. Augustine.—The county commissioners have decided to erect a temporary courthouse to cost \$6,000. B. Oliveros can give particulars.

St. Augustine.—J. J. Powers and E. P. North are negotiating for putting in a sewerage system.

Tallahassee.—It is reported that an electric light plant will be erected. If true, L. D. Snook, of De Leon Springs, can give particulars.

Tampa.—It is reported that a large hotel is to be erected and that plans are being prepared. If correct the mayor can probably give information.

#### GEORGIA.

Athens.—A company has been formed with R. K. Reeves as president, and William D. Griffith, secretary and manager, to operate the Pioneer Paper Mill reported last week as to be put in operation.

Athens.—The Bloomfield Water Power Co., previously reported, have organized with R. L. Bloomfield as president, and F. W. Cheney, agent. They have decided to begin work at once on the yarn mill reported last week as to be built at the Barnett Shoals. The capacity will be 5,000 spindles.

Atlanta.—The fertilizer factory reported last week as being erected by John M. Green and associates is the same as the works of the Atlanta Guano Co., lately reported.

Augusta.—P. E. Hayes and L. P. Groff, of Pawtucket, R. I., are negotiating for the purchase of the Riverside Cotton Mills. If they fail to purchase the mill they will build a new cotton mill.

Augusta.—The Augusta Chronicle Co. will, it is reported, erect a fine new building.

Brunswick.—The Oglethorpe National Bank have purchased a site, 30x90 feet, to erect a new building.

Brunswick.—A steam laundry will be started by a party from New York.

Columbus.—The Franziska Mining Co., capital stock \$100,000, has been incorporated to develop ochre mines in Pickens county by J. A. Walker, R. W. Walker, B. H. Crawford and Kristian Kortgaard. They have purchased machinery and will erect at once mills near Talking Rock, with a daily capacity of 20 tons.

Columbus.—The Enquirer-Sun Publishing Co. will put in large new press.

Conyers.—The Foster Car Coupling Co. has been chartered by Abraham G. W. Foster, James H. Shelton, L. R. Day and John R. Wilkinson.

Covington.—A company will be chartered to build the street railroad to Oxford reported last week. W. C. Clark can give particulars.

Dahlonega.—The Lumpkin County Land & Improvement Co., previously reported, have organized with D. G. Wylie, of Atlanta, as president; F. W. Hall, vice-president; W. A. Charters, secretary, and A. C. Johnson, treasurer.

Dahlonega.—The Adams Mining Co. contemplate erecting a stamp mill.

Dalton.—It is reported that a Philadelphia (Pa.) party is negotiating for the establishment of architectural iron works. If anything is done the mayor can probably give particulars.

La Fayette.—The La Fayette Land & Manufacturing Co., lately mentioned as to erect a handle factory, are erecting a 40 horse-power saw mill also.

Macon.—Surveys are being made for the Macon & Opelika Railroad.

Macon.—The capacity of the Macon Stocking Factory will be doubled.

Macon.—The Times Publishing Co., capital stock \$10,000, has been incorporated by A. R. Lamar and others.

Macon.—The Atlantic, Birmingham & Kansas City Railroad Co. intend to build machine shops at Macon. H. D. Capers, of Adairsville, can give information.

Macon.—It is stated that the Brott Cotton Gin Co. have decided to locate their gin works at Macon and will invest about \$50,000 in a plant. They are negotiating for the Findlay foundry. H. D. Capers, of Adairsville, can give particulars.

Newnan.—Nearly \$50,000 has been secured towards organizing the \$100,000 stock company to build the cotton factory reported last week. R. D. Cole, Sr., is interested.

Newnan.—Parks & Arnold will establish a large carriage factory. They will, it is said, invest about \$25,000.

Palmetto.—J. K. Smith will open and develop a marble quarry.

Quitman.—K. H. Williams and Joseph Mabbett will build a guano factory soon.

Quitman.—Messrs. Dewey will build an iron covered warehouse, 105x105 feet, and have let the contract to George W. Avrett.

Rome.—R. H. Jones & Son, of Cartersville, talk of moving their carriage and wagon factory to Rome.

Tallapoosa.—A broom factory will be started by Baker & Leech.

Thomasville.—The water tower for the water works has been wrecked and a new one will have to be built. Rommerdall & Thompson have the contract for the works.

Union Point.—Parties are negotiating for the Newson gold mine with a view to developing.

#### KENTUCKY.

Bowling Green.—J. T. Pierce, of Warrior Station, Ala., reported last week as having purchased 65,000 acres of coal lands and to open four mines, has, with others, organized a stock company for that purpose. Mr. Pierce is president and general manager; J. W. Jones, vice-president, and T. J. Bunch, secretary.

Carrollton.—J. C. Bond and others have incorporated the White's Run Turnpike Road Co., capital stock \$20,000, to build turnpike roads.

Covington.—The Reuhl Molding Manufacturing Co., of Cincinnati, O., will move their picture frame factory to Covington, previously reported, if certain arrangements can be made.

Danville.—A flour mill will, it is stated, be erected by B. F. Reeder.

Elkton.—The Bank of Elkton, H. G. Petree, president, are preparing to rebuild their building lately burned.

Frankfort.—Miles & Son have lately put a large new engine and boiler in their flour mill, and have increased their capacity.

Lewisport.—A tobacco factory is reported to be started.

Lexington.—The Diamond Oil Co., capital stock \$1,000, has been incorporated to develop lands, by A. J. Highey, A. C. Diamond, William Bright, Watts Parker and others.

Louisville.—It is reported that arrangements have been made for building a railroad from a point on the Cincinnati Southern Railroad (office, Cincinnati, Ohio,) to the East Tennessee, Virginia & Georgia Railroad.

Louisville.—A new school building will be erected to replace the one burned last week. The mayor can give particulars.

Maysville.—The Maysville Natural Gas Co. are preparing to sink another well.

Oakland Station.—It is reported that J. S. Jordan will build a flour mill.

Owensboro.—Frank Ebelhaar has started a pork-packing establishment.

Owensboro.—H. M. Richmond is removing his saw mill and wood-working factory from Jamestown, Ind., to Owensboro. He is erecting a three-story building.

Versailles.—Missouri parties are prospecting for minerals and have leased some land.

Winchester.—John A. Tanner has erected a corn mill and will shortly add a planing mill and machinery for manufacturing cob pipes.

#### LOUISIANA.

Baton Rouge.—The State Board of Engineers are advertising for bids for building a number of levees.

New Orleans.—A. Wetzell has asked for permit to erect a sausage factory corner of Marengo and Jersey streets.

New Orleans.—The Weckerling Brewing Co., previously reported as organized to purchase and refit the old Weckerling brewery, have let the contract for an additional building to A. Thiesen. It will cost \$55,000.

New Orleans.—The South Illustrated Publishing Co., capital stock \$10,000, has been chartered, with Atwood Violet as president.

Shreveport.—Patterson & Son have purchased machinery to start a sausage factory.

#### MARYLAND.

Baltimore.—Christian Devries, Charles Marshall, James C. Gittings, Fielder I. Hiss and Nelson Hiss have incorporated the P. Hanson Hiss Manufacturing Co., capital stock \$30,000, to manufacture and sell furniture, &c.

Baltimore.—The contract for the plumbing of the new postoffice has been let to Crook, Horner & Co.

Baltimore.—Francis White will erect 7 two-story houses on Hudson street, and John W. Parks 3 three-story houses on Hanover street.

Baltimore.—The Maryland Pearl Hominy Mills, McElderry's wharf, will put in a 50 horse-power steam boiler and engine; J. Sadleman & Co., 514 S. Eutaw street, a 35 horse-power engine and boiler, and George G. Tyler, 2500 Boston street, (lumber mill), 100 horse-power boiler and engine.

Caroline County.—The Choptank Iron Ore Mining Co., of Philadelphia, Pa., will develop iron ore lands.

Denton.—E. M. & T. F. Garey have contracted for the remodeling of their flour mill to the roller system.

Elkton.—The Providence M. P. Church have bought a site to erect a brick church.

Frederick.—Edgar L. Miller and others have formed a company to do a manufacturing and publishing business. It is said their capital stock will be large.

Highland Station, (P. O., Pylesville).—Negotiations are being made for the erection of a canning factory.

Keedysville.—H. F. Nikirk & Son have lately bought some new machinery for their flour mill.

Middlebrook.—Mill machinery has lately been purchased by Levi L. Watkins.

Mill Green.—John Famous will erect a canning factory.

Oakland.—P. P. Gortner has lately purchased flour mill machinery.

Prospect.—Jacob Love has put some new machinery in his flour mill.

Rockville.—Some new machinery has been purchased for the mill of S. F. Mullican.

Washington, D. C.—Helen A. Cook will erect three brick buildings at Fourteenth and N streets, northwest, to cost \$15,000. Six dwellings will be erected on M street, at a cost of \$10,000, by Charles W. King.

Washington, D. C.—The Anacosta & Potomac River Railroad Co. contemplate extending their street railroad.

Washington, D. C.—C. W. King will erect six brick dwellings on N street, northwest, to cost \$10,000.

Washington, D. C.—Mrs. H. E. Peller will erect brick stables to cost \$6,000, and H. Goldstein a \$5,000 brick dwelling at 913 Eighth street, northwest.

Washington, D. C.—J. Jones will erect 11 brick dwellings on Porter Place, to cost \$18,000.

Webster.—Joseph E. Ward has repaired and improved his grist mill.

Woodberry.—The Consumers' Water & Illuminating Co., of Baltimore, have let the contract for constructing their water works and gas works, previously reported, to Geo. B. Morton. He will commence work within 30 days. The cost will be \$200,000.

#### MISSISSIPPI.

Aberdeen.—Enderlin & Beronio will enlarge their foundry and machine shop during the coming year.

Bay St. Louis.—Northern parties have purchased a site to build a large canning factory. It is said the building will cost \$20,000. E. E. Spence can probably give information.

Glendale.—The gauge of the Mobile & Northwestern Railroad is to be changed from narrow to standard.

Greenwood.—A stock company is being formed to build a \$5,000 opera house. W. D. Conway can probably give information.

Greenwood.—A stock company is being organized to manufacture furniture. W. D. Conway can probably give particulars.

Jackson.—Martin & McAfee, of Lake View, Mich., previously mentioned as to build a saw mill and woodworking factory, will move their whole plant, consisting of saw mill, shingle mill and barrel and stave factory to Jackson.

Maldron Station.—A creamery is to be started.

Meridian.—The Meridian Carriage & Wagon Works will move their machinery for manufacturing pumps, now at Memphis, Tenn., to their works at Meridian.

Natchez.—S. R. Bullock & Co., of New York, will shortly resume work on the water works previously reported as being built by them.

Wesson.—It is rumored that the Mississippi Mills (cotton) contemplate enlarging by adding 250 looms and other machinery in proportion.

Zeiglersville.—H. O. Zeigler will rebuild his mill lately burned.

#### NORTH CAROLINA.

Ansonville.—W. B. Little has purchased machinery for a mill.

Asheville.—Gregory P. Harte is arranging to open the Buck Creek corundum mine.

Camp Creek.—A saw mill is being erected by N. Young.

Charlotte.—L. Haymann has lately started a sausage factory.

Denton.—Frank Bros., previously reported as erecting a grist mill, are also erecting a saw mill.

Durham.—The Durham Electric Co. contemplate putting in a new plant of the alternating system.

Durham.—A committee has been appointed to select a site, prepare plans and specifications, &c., for a hotel to cost about \$100,000. E. C. Hackney can give information.

Durham.—Arrangements are being made to secure the establishments of the 15,000 spindle cotton factory reported last week. S. T. Morgan can give information.

Durham.—A wagon factory is projected. E. C. Hackney can give information when anything is done.

Elizabeth City.—The Presbyterians are receiving bids for building a church.

Fayetteville.—Col. Gardner is making arrangements to build the bridge for the Wilson Short Cut, across the Rockfish.

Germantown.—H. A. Morris has purchased machinery for a mill.

Greensboro.—The capacity of the Thompson-Houston electric light plant is being doubled.

Greensboro.—Pegram & Pipkin will erect steam flouring and grist mills.

Hendersonville.—The vote to be taken on January 2 will be to decide whether or not



to issue \$20,000 of bonds to build the water works, previously reported.

Indian Trail.—Mines are being opened.

Ingold.—A. N. Johnson & Son are rebuilding their turpentine distillery lately mentioned as burned.

Jacob's Fork.—Keever & Co. have moved their saw mill to the Indian creek in Lincoln county.

Leechville.—D. C. Way & Co. are preparing to rebuild their burned mill.

Lincolnton.—W. and R. Tiddy are erecting another wood pulp mill at their paper mills, previously reported.

Mount Airy.—Rufus Roberts is building the hotel previously reported. It will be four stories.

Mount Airy.—J. F. L. Armfield will start a cigar factory.

Mount Airy.—A flour mill and a planing mill are being built by Sides & Spagh.

Mount Airy.—J. P. Rawley is negotiating with a Northern party to establish bark extract works.

Old Fort.—John Kelly has purchased machinery for flour mill.

Oxford.—A Virginia party is corresponding with a view to moving his tobacco factory to Oxford.

Oxford.—Several manufacturing enterprises are reported to be established early next year.

Oxford.—A party in Ohio has been corresponding in regard to starting a tool handle factory. H. W. Kronheimer can probably give information when anything is done.

Oxford.—G. R. Hundley has purchased machinery for his planing mill and sash and blind factory lately reported. He will erect a corrugated iron building.

Raleigh.—An iron working shop and a cotton gin will be erected at Millbrook, 6 miles from Raleigh. D. S. Hudgings can give particulars.

Raleigh.—The Gamewell Fire Alarm Co., of New York, have contracted to put in the fire-alarm system previously reported. It will cost \$2,890.

Raleigh.—The county commissioners will build two bridges across the Neuse river to cost from \$4,000 to \$5,000 each.

Reidsville.—J. H. Walker & Co. will erect a box factory and a corn mill.

Rockingham.—The Roberdel Manufacturing Co., reported last week as to increase their capital stock to \$125,000, will purchase additional machinery for their cotton factory.

Rockingham.—J. B. and J. S. Ledbetter, yarn manufacturers, have recently purchased some new machinery.

Salem.—Hough & Co. are improving their hosiery mill.

Salisbury.—The name of the company recently mentioned as being formed to build a cotton mill is the Salisbury Cotton Mills. The capital stock subscribed is \$62,500. Work will be commenced as soon as weather permits.

Salisbury.—\$38,000 have been subscribed toward organizing a company to build a second cotton mill. Theodore Buerbaum can give information.

Salisbury.—John A. Hedrick will erect a two-story iron front building, 40x100 feet.

Sanders' Store.—A grist mill will be built by John W. Sanders.

Springdale.—John V. Reese has purchased machinery to erect a saw mill.

Tarboro.—It is reported that a company has been formed to build a cotton mill in Edgecombe county.

Thomasville.—H. F. McCarty has leased and is developing the Eureka mine.

Warsaw.—Thomas B. Peirce is enlarging his crate and berry basket factory. He will rebuild his gin reported in this issue as burned and will want machinery.

Wilmington.—The Bulletin Publishing Co. has been organized with Almore Walker as president.

Webster.—A bucket factory is being built.

Webster.—A sash, blind and tobacco box factory and a grist mill are being erected.

#### SOUTH CAROLINA.

Asbury.—J. D. Jeffries & Bro. have lately purchased some new machinery for their mill.

Columbia.—Ariana I. Dial, William H. Lyles and C. Haynesworth have incorporated the Dial Engine Works, to manufacture engines, boilers, iron work, etc. Their capital stock will be \$30,000.

Columbia.—Bills have been introduced in the legislature to incorporate the Santee Lumber & Navigation Co.; the Camden Street Railway Co., and the Anderson Street Railway Co.

Donaldsonville.—James E. Todd, of Due West, will erect a corn and flour mill and has purchased machinery. It will cost \$5,000.

Greenville.—Charles H. Lanneau has selected a site for and is preparing to erect the yarn mill lately mentioned. He will organize as the Lanneau Manufacturing Co. with himself as president and treasurer.

Greenville.—W. A. Wright, representing the Brush Electric Light Co., will negotiate for the erection of a plant.

Wallaceville.—A. W. Lever is erecting a new mill.

#### TENNESSEE.

Ashland City.—The Tennessee Lumber Co. have sold several hundred acres of timber lands to Chicago parties.

Athens.—The Athens Mining & Manufacturing Co. have let the contract to build their water works, previously reported, to the Union Iron Works Co., of Chattanooga.

Bristol.—Parties are negotiating for developing the Stock Creek coal mines.

Bristol.—J. M. Lloyd, of Indianapolis, Ind., and associates are negotiating for the erection of an iron furnace of 100 tons capacity. The South Atlantic & Ohio Railroad Co. can give particulars as soon as anything is decided on.

Bristol.—E. E. Shaver, of Jamestown, N. Y., has been prospecting for a site for a stove factory.

Campbell's Station, (P. O. Fountain Creek).—A stone quarry on the land of L. G. Fleming, 2 miles from Campbell's Station, is being reopened.

Carthage.—Coffee & Ware, of St. Louis, Mo., have contracted to build part of the Nashville & Knoxville Railroad.

Chattanooga.—McCombs, Taylor & Co., of Atlanta, Ga., contemplate moving their machine works to Chattanooga and enlarging their capacity. They will probably organize a stock company.

Chattanooga.—The Cincinnati Investment Co., previously reported as to erect 8 three-story brick buildings and 7 two-story brick buildings, have let the contract to D. P. Chandler. They will cost about \$50,000.

Chattanooga.—There is talk of a company being formed to manufacture lime from furnace slag.

Chattanooga.—It is reported that J. Saechel, of Washington, D. C., contemplates starting a cigar factory.

Chattanooga.—The Chamber of Commerce will probably erect a building.

Chattanooga.—The American Refrigerating & Construction Co., of Harrisburg, Pa., previously reported as to build a 40-ton ice factory and a cold storage warehouse, are preparing to commence work. They will organize a local stock company to operate the plant.

Chattanooga.—The Union Iron Works Co. have purchased 10 acres of land on which to build new and larger works.

Chattanooga.—It is rumored that a planing mill will be erected at East End.

Chattanooga.—The Southern Land & Loan Co. have plans prepared for a large four-story building which they will erect on Cherry street.

Chattanooga.—The Dowling Furnace Co. have decided on a location for their iron furnace, previously reported.

Chattanooga.—It is reported that the First National Bank will erect a large four-story building corner of Eighth and Broad streets.

Chattanooga.—Bids for the stone work of the new hotel at Athens for the Athens Mining & Manufacturing Co. will be received until December 20 by Thomas C. Veale.

Chattanooga.—The city engineer will shortly advertise for bids for building a sewer.

Chattanooga.—It is reported that W. Wilson and others will sink a gas well near Chattanooga.

Clarksville.—G. L. Carlisle & Co., lately reported as erecting a flour and corn mill, will erect the wool carding machinery with a view to establishing a complete woolen mill.

Columbia.—W. M. Buchanan is erecting a new carriage factory.

Columbia.—A fire-alarm system is being agitated. The mayor can give information if anything is done.

Cumberland Gap.—The American Association, Limited, Alexander A. Arthur, Knoxville, manager, intend to lay out and build a large industrial town on the Kentucky side of Cumberland Gap. They contemplate having erected several large furnaces and steel plants and four or five coking plants on the properties they own; also lumber mills and wood-working factories.

Daisy.—The Tabler & Crudup Coal & Coke Co. have sold their mining properties to M. H. Clift, James Williams and George Price. They will continue the development of the mines and may build more coke ovens.

Elizabethton.—Messrs. Teegarden and Finney, previously reported, will soon begin developing their Sterling iron property.

Emory Gap.—It is reported that a company is being formed to build a railroad up the Crooked Fork of Emory river to open up coal lands. The road will be 9 miles long.

Fayetteville.—There is talk of a cotton and woolen mill being erected. If anything is done John L. Waggoner can give information.

Greysville.—S. M. Winchester, of Chattanooga, and others are opening coal mines and will, it is said, build a large number of coke ovens.

Johnson City.—S. Crumley will probably start a clay and cob-pipe manufactory.

Knoxville.—Indiana parties have been prospecting with a view to building an iron furnace.

Knoxville.—The Knoxville Brewing Association have increased the capacity of their brewery 33½ per cent.

Knoxville.—A fire-alarm system will probably be put in. The mayor can give information.

Knoxville.—The Oriental Marble Co. has been chartered to develop marble quarries by E. L. Lambie and others. They will at once put in machinery for quarrying and light mill machinery at a cost of \$7,000.

Knoxville.—The canning factory is still being agitated.

Maryville.—There are prospects of a hotel being built at a cost of \$35,000. R. A. Reams can probably give information as soon as anything is done.

McMinnville.—There will probably be a stock company formed to establish a chair factory. R. A. Reams can give information when anything is done.

Memphis.—An electric street railroad is to be built if a permit can be secured. The parties will also erect an electric light plant.

Memphis.—W. A. Williamson, W. F. Taylor, R. C. Craig, John L. Williford and A. K. Ward have incorporated the Williford Manufacturing Co. to manufacture buckets, barrels, &c.

Memphis.—The capital stock of the Memphis Manufacturing & Brick Co. will be increased from \$100,000 to \$250,000.

Memphis.—The Catholic Publishing Co. has been incorporated by A. Walsh, M. Gavin, P. Carlin, John J. Shea and others.

Morristown.—H. H. Corson, representing the Thompson-Houston Electric Light Co. has formed a stock company to erect the electric light plant previously reported as probably to be erected.

Morristown.—The iron foundry of C. H. Witt & Son, at Witts Foundry, is being moved to Morristown and will be operated by the Gregg Manufacturing Co.

Morristown.—The company to build the street railroad previously reported has been organized with J. C. Matthews as president, and A. W. Lotspeich secretary and treasurer. The capital stock is \$50,000.

Nashville.—William M. Duncan, William Morrow, Morgan W. Brown, Robert L. Weakly, Edward H. Pigue and Joshua Brown have incorporated the Polar Refrigerator Co. They will establish a factory to manufacture anhydrous ammonia, &c.

Nashville.—J. O. York, of Columbia, is trying to organize a stock company to manufacture table syrups.

Nashville.—W. A. Crowder, of Dallas, Texas, is making efforts to organize a stock company to manufacture electric fare boxes and registers for street cars. The capital stock is to be \$100,000.

Nashville.—Ira P. Jones, D. A. Bradley, H. W. Forde, O. E. Davidson, J. H. Vaughn, C. A. Black and others have chartered the Davidson Motor Co. to manufacture engines, cars, motors, &c.

New Market.—The New Market Canning Co., capital stock \$2,000, has been organized to start a canning factory. H. C. Whitaker is president; S. M. Dyer, secretary, and G. W. Long, treasurer. The secretary is negotiating for machinery.

Shelbyville.—There is talk of a company being formed to build a hotel.

Tullahoma.—A subscription of \$35,800 has been voted to the Cincinnati & Birmingham Railroad.

#### TEXAS.

Austin.—The Farmers' Alliance will build a warehouse.

Austin.—The capital stock of the Austin & McGregor Railroad Co., previously reported to be chartered, will be \$1,000,000. The directors are Joseph Nalle, W. H. Tobin and Walter Tips, of Austin, and others.

Austin.—The Capital Light, Power, Water & Heating Co., capital stock \$300,000, has been chartered by James Holmes, of San Marcos; N. E. Judge and E. T. Eggleston, of Austin; Sylvester Watts, of St. Louis, Mo., and others.

Beaumont.—The Reliance Lumber Co. will, it is reported, build a system of water works.

Bonham.—Efforts are being made to organize a stock company to erect a cotton compress.

Bonham.—Bids for sinking an artesian well will be received until January 5 by the mayor.

Brenham.—The Houston & Texas Central Railroad Co. (office, Houston) contemplate building a new freight depot.

Burnet.—Shannon & Edman are erecting a building at their granite works to put in machinery for cutting and polishing stone.

Dallas.—The Catholics contemplate building a large cathedral, 117x196 feet, with two spires 200 feet high, and have prepared plans. Alfred Davis can give particulars.

Dallas.—The Dallas Electric Light, Water & Manufacturing Co., capital stock \$50,000, has been chartered by L. Craddock, W. S. Simpkins and G. H. Schoelkopf.

Dallas.—The Dallas Land & Loan Co. are receiving proposals for building twenty houses at Oak Cliff.

Dallas.—A company will be organized to build a paper mill. Work is to be commenced within two months. W. H. Gaston can give information.

Dallas.—Kratz Bros., of Evansville, Ind., contemplate, it is said, moving their foundry and machine works to Dallas or some other place in Texas.

Denison.—Coffin, Perry & Tone will build about 6 miles of street railroad, and have commenced work.

El Paso.—The Omaha & Mexican Air Line Railroad Co. has been chartered at Topeka, Kans., to build a railroad from Omaha, Neb., via El Paso to the City of Mexico. C. C. Free, Syracuse, Kans., is a director.

Fort Worth.—John F. Swayne and others will soon organize a company to build a street railroad.

Fort Worth.—R. E. Maddox will erect a two or three-story building, 100x200 feet.

Galveston.—The Galveston Street Railway Co. have received permit to run their cars by electricity, previously reported.

Greenville.—The Hunt County Alliance Roller Mill Association, reported last week as to build the flour mill previously reported, has a capital stock of \$50,000. Jacob Reeder is president; S. T. Culver, vice-president; W. A. Anderson, secretary, and C. Tilson, treasurer.

Hillsboro.—Mr. Hill, of Fort Worth, has been prospecting with a view to building water works.

Houston.—The Henke Artesian Ice Co., capital stock \$30,000, has been chartered by H. Henke, W. D. Cleveland and J. C. Hutchinson.

Houston.—The Houston & Texas Central Railway Co. have been receiving bids for building a 24-stall round-house.

Houston.—The San Antonio & Aransas Pass Railway Co. (office, San Antonio) have made a proposition to build their road from Wallis to Houston, which will probably be accepted.

Jacksonville.—A company with a capital stock of \$5,000 has been formed to establish a canning factory. B. B. Cannon can give information.

Llano.—S. D. Lacy has organized the company to develop the iron ore lands lately reported and will commence work next spring.

Marshall.—Efforts will be made to have a furniture factory started. The mayor can give information.

Paris.—M. P. Kelly, of Georgetown, previously reported as contracting to build water works, has, with J. D. Thomas and L. P. Harrison, incorporated the Paris Water Co., capital stock \$20,000.

Plank.—B. S. Fitzgerald has recently added a planing mill to his saw mill.

Terrell.—M. Cartwright and others are talking of starting the canning factory reported last week.

Texarkana.—W. Pollock, G. A. Hays, V. T. Hannon and W. M. Campbell have incorporated the Pollock Mining Co., capital stock \$35,000.

Texarkana.—W. L. Whitaker, A. L. Ghio, L. Montedonica, A. P. Ghio and James D. Cook have incorporated the Texarkana Gas Light Co., capital stock \$50,000. They invite proposals for building their works.

## VIRGINIA.

Brown's Cove.—James W. Early will improve his mill. Has purchased machinery.

Crews.—The Norfolk & Western Railroad Co., (office, Roanoke) previously reported as to build machine shops, have let the contract for a 21-stall roundhouse, machine shop 40x100 feet, store and oil house 40x60 feet, and 30 dwellings to John P. Pettyjohn, of Lynchburg, at about \$75,000.

Fredericksburg.—The Rappahannock Electric Light & Power Co. are doubling their plant.

Graham.—John P. Pettyjohn, of Lynchburg, has received the contract to build at Bluefield, 2 miles from Graham, for the Clinch Valley Railroad Co., a 16-stall roundhouse, machine shop 40x100 feet, store and oil house 40x60 feet, a depot and 29 houses. The cost will be about \$60,000.

Gum Spring.—Byron & Lane have recently erected a new grist mill.

Lynchburg.—The Norfolk & Western Railroad Co. (office, Roanoke,) contemplate building a large depot to cost about \$75,000.

Lynchburg.—Max Guggenheimer is making efforts to organize a company to build a cotton factory. The capital stock will be \$200,000.

Lynchburg.—John N. Slicer & Co. will start a canning factory.

Madison's Mills.—T. O. Gillum & Co., previously reported as contemplating remodeling their flour mill to the roller system, have let the contract to E. Corbett, of Washington, D. C.

Murphy's Mills.—It is rumored that a grist mill will be erected.

New River Depot.—G. C. Wharton is improving his mill.

Norfolk.—The Cumberland Street M. E. Church will be improved at a cost of \$6,000.

Norfolk.—The Norfolk Tinware & Manufacturing Co., previously reported as burned out, are rebuilding.

Portsmouth.—A. Mr. Wilson, of Baltimore, Md., has been prospecting with a view to establishing a furniture factory.

Portsmouth.—The basket and butter dish factory reported last week is being erected by H. W. Brown.

Richmond.—The Virginia Electric Light & Power Co. will probably soon begin erecting their plant, previously reported.

Richmond.—The Gallego Mills (flour), lately mentioned as contemplating adding a 300-barrel roller mill, have contracted for machinery.

Richmond.—Bills have been introduced in the legislature to incorporate the Hampton & Old Point Street Passenger Railway Co.; the Chesapeake Street Railway Co.; the Old Point, Hampton & Newport News Railway Co.; the Falls Church & Potomac Railroad Co.; the Hampton & Old Point Comfort Street Railway Co.; the Chester Lumber & Manufacturing Co., with a capital stock of not less than \$20,000 nor more than \$500,000, and R. A. Danlop and others as incorporators, and the Danville & Great Western Railroad Co., to build a railroad from Danville to Bristol, Tenn., with a capital stock of not less than \$100,000, and J. B. Pace and others as incorporators.

Scottsville.—P. P. Gantt is building a new flour mill. He has purchased machinery.

Staunton.—J. H. Connell, reported last week as to develop clay banks, will manufacture fire-brick, tile and sewer pipe, and wants machinery.

Suffolk.—McCleary & Manning will build a grist mill.

Suffolk.—There are reports of a railroad to be built from Norfolk to Suffolk by parties who are prospecting for and securing options on timber lands.

Suffolk.—McCleary & Manning will build next spring a mill to manufacture veneer, baskets, butter trays, sash, doors, &c. They will also erect a grist mill.

Sutherland.—J. B. Anderson, of Ringgold, is organizing a stock company to start a spoke and handle factory.

University of Virginia.—A \$50,000 building is reported to be erected for the Young Men's Christian Association.

Winchester.—A. H. Griffith's Sons have purchased a water wheel to increase the power at their woolen mill.

Wise County.—S. Bitely has purchased a large quantity of timber and will erect a saw mill.

## WEST VIRGINIA.

Burlington.—The Buffalo Lumber Co., lately reported as chartered to manufacture lumber at Byard, are erecting a mill 35x120 feet, with a daily capacity of about 50 M feet. They are also building 4 miles of narrow gauge railroad.

Charleston.—The Kanawha Electric Light Co., previously reported, have contracted to light the city.

Jane Lew.—V. B. Flesher has purchased machinery to erect a roller flour mill.

Kabetown.—C. H. Kable has put some new machinery in his flour mill.

McDowell County.—Prof. D. Invilliers has purchased about 10,000 acres of mineral lands and will probably develop. J. V. Kelly, Tazewell C. H., Va., can give particulars.

Point Pleasant.—A party has made a proposition to establish iron works if a site of 2 acres is donated. W. C. Whaley can give information if anything is done.

Romney.—C. S. White, Isaac T. Brady, S. L. Flourney, R. W. Gilkeson and R. W. Daily, of Romney, and Robert W. Monroe, of Kingwood, have chartered the Romney & Short Mountain Railroad Co., to build the narrow gauge railroad reported last week. The capital stock is \$25,000.

Ronceverte.—W. H. McClintic will erect a new (flour) mill and has purchased machinery.

St. George.—It is rumored that a tannery will be built at some point in Tucker county by New York parties.

Wheeling.—It is rumored that the Philadelphia (natural gas) Co. will build another pipe line in the spring from their wells to Wheeling.

Wheeling.—The United States Oil Co., previously reported, have organized with C. M. Frissel as president, and W. J. W. Cowden, secretary. They will shortly develop their lands in Ritchie county.

Wirt County.—M. B. McIntosh, of Cooperstown, Pa., has purchased timber lands and will erect, it is said, two saw mills.

## BURNED.

Alexandria, Ky.—The saw mill of John Gubser wrecked by a boiler explosion.

Blountsville, Ala.—The lumber kiln of Otto W. Peels.

Calhoun, Ala.—The grist mill and gin of L. Hudson.

Carrollton, Ala.—The grist mill and gin of Mr. Cabiness; loss \$1,000.

Caryville, Fla.—The grist mill and cotton gin of Thomas Miller.

Cochran, Ga.—The saw mill, grist mill and cotton gin of David Simpson, 12 miles from Cochran; loss \$2,300.

Fort Worth, Texas.—The grain elevator owned by the N. C. Brooks estate; loss \$5,000.

Hogansville, Ga.—The cotton-seed oil mill of T. M. Sikes & Co. damaged by a boiler explosion.

Hazlehurst, Miss.—The saw mill of John G. Taylor, 6 miles from Hazlehurst, damaged by a boiler explosion.

Lawrenceburg, Tenn.—The Shoal Mills (plaid) owned by William Parkes; loss \$15,000.

Montgomery, Ala.—The shoe factory of M. Sable & Son.

Montgomery, Ala.—The soda water factory of W. W. Tatum; loss \$10,000. Will be rebuilt.

Pulaski County, Ga.—The saw mill, grist mill and cotton gin of David Simpson; loss \$2,500.

Seven Oaks, Texas.—The saw mill of C. N. Fisher wrecked by a boiler explosion.

Tuskaloosa, Ala.—The dry kiln of J. C. Bowers & Sons.

Chattanooga, Tenn.—The nail department of the South Tredegar Iron Co's plant damaged about \$20,000 by fire.

The gins of J. Allen Parks and Alfred Parks, Young's Store, S. C.; T. B. Pearce, Warsaw, N. C., (will rebuild); N. M. Isler, Bradfordville, Fla.; K. Pettus, in Warren county, Miss.; S. Whitaker, Enfield, N. C.; W. H. Ellerbee, Marion, S. C.; John Morrell, 16 miles from Greenville, Ala.; James Harrison, Walnut Grove, S. C., and W. D. Burns, 10 miles from Yazoo City, Miss., have been burned.

LAWTEY, FLA., Dec. 5, 1887.

## Editor Manufacturers' Record:

Parties have bought about 50,000 acres of timber lands near Otter creek, Fla., and intend putting up a fine mill some time in the future. Their names are D. Whitney, of Detroit, Mich.; Batchalar, of East Saginaw, Mich.; N. Durham and Mac Laughlin, of Bay City, Mich. L. W. SAYLES.

## Electric Light Plant.

NASHVILLE, TENN., Dec. 5, 1887.

## Editor Manufacturers' Record:

The Fayetteville Electric Light & Power Co., of Fayetteville, Tenn., have contracted with the Jenney Electric Co., of Indianapolis, Ind., for an electric lighting arc plant of thirty-two lamp capacity, which will be in operation early in January next.

A. C. GREEN.

## Building Lumber Mill.

BURLINGTON, W. VA., Dec. 6, 1887.

## Editor Manufacturers' Record:

We are getting ready to manufacture lumber at Byard, on the line of the W. Va. C. & P. R. R., in Grant county. Expect to commence in January if nothing happens. Are building 4 miles of narrow gauge railroad to reach timber; will open a vast timber region. Are building mill 35x120 feet, with boiler room 22x60 feet; will have a capacity from 40,000 to 60,000 feet per day.

D. R. LEATHERMAN.

## Electric Light Plant.

SAN ANGELO, TEXAS, Dec. 7, 1887.

## Editor Manufacturers' Record:

We are erecting electric light plant of Thomson-Houston system, 100 horse-power boiler and engine. Will be completed early in January. F. O. RICHARDS.

## Building Smelting Works.

METROPOLITAN HOTEL, N. Y.,  
Dec. 10, 1887.

## Editor Manufacturers' Record:

I am erecting a new smelting works at El Paso, Texas. First furnace will have capacity of 15 tons daily; three others to be erected later to be 60 or 80 tons and one of 120 tons, if business prompts. No company yet formed. It is to be styled International Smelting Works, P. O. address, El Paso, Texas. Works will cost \$40,000 on the start, and will have all the money necessary to complete extensions up to \$150,000.

C. C. FITZGERALD.

## Erecting Lumber Mill.

THORNTON, ARK., Dec. 6, 1887.

## Editor Manufacturers' Record:

Our lumber mill will probably be completed by January 1st, and will have a capacity of about 30 M feet per day.

BUCHANAN & CO.



## A Big Thing for the South

Anniston has scored a victory which will result in immense benefits to the entire South. Some months ago the attention of the United States Rolling Stock Co., an English corporation, with headquarters in New York, and having two large car works in the West, was attracted to the advantages of Anniston as a point for building cars and locomotives. An expert was sent down to investigate, and his report was so favorable that the company at once opened negotiations with Anniston people for the purchase of the large car, car wheel and car axle works now in operation there, with a view to using them as the nucleus of a gigantic car building plant. From time to time the MANUFACTURERS' RECORD has reported the progress of these plans. After several months of delay, due partly to the fact that all details had to be arranged here and agreed upon by the stockholders in England, the matter has been finally consummated, and a telegram from Anniston, under date of December 12, says:

"A cable dispatch from London announces that the United States Rolling Stock Co. has decided to increase its capital stock from \$3,000,000 to \$4,000,000 and to build at Anniston a large car works, including a rolling mill and foundry, capable of turning out 20 cars a day. The works will employ 1,000 men and will disburse \$10,000 a day for labor and material."

This vote, we understand, was unanimous, thus showing the appreciation these capitalists have of the great advantages of Anniston for this immense enterprise. This is not simply a victory for Anniston. It must have a wonderful effect upon that town, but looked at in its broader sense, it is victory for the whole South. That English capitalists should establish in the South a car manufacturing plant to cost \$1,000,000 shows their faith in the vast industrial development of that section. This will undoubtedly do the whole South immense good. It will increase the confidence of others in the future of the South and will cause the investment of many millions. These works will build platform, freight and passenger cars, including the highest style of the latter, so that they will be able to equip a road with every kind of car needed.

In addition to this plant as described in the foregoing telegram, this move will, it is understood, result in the establishment of another large rolling mill there. Mr. John Noble, who is one of the owners of the car wheel, car axle and car works to be purchased by this company, has declared his intention of building on his own account a large rolling mill as soon as this great deal was settled. As this has now been done, Mr. Noble will, we suppose, carry out his intention.

Anniston is to be congratulated.

KNOXVILLE, TENN., Dec. 7, 1887.

*Editor Manufacturers' Record:*

We have improved our brewery to 2,000 barrels more capacity, which makes it altogether 8,000 barrels.

KNOXVILLE BREWING ASSOCIATION.

## MACHINERY WANTED.

(If you desire to purchase machinery of any kind consult our advertising columns, and if you cannot find just what you wish send us particulars as to the kind of machinery needed. We will make your wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. You will thus get all information desired as to prices, &c.)

**Boiler and Engine.**—Vinton Goff, Atkins, Ark., wants to buy a small boiler and engine.

**Brick Machinery** will be wanted by the Pine Bluff Pressed Brick Co., Pine Bluff, Ark. Jacob C. Thalman is manager.

**Canning Machinery.**—S. M. Dryer, New Market, Tenn., will want machinery for a canning factory.

**Elevators and Motors.**—M. P. Levy, Mobile, Ala., wants the address of manufacturers of hydraulic elevators and motors to run elevators.

**Gas Works.**—W. L. Whitaker, Texarkana, Texas, wants bids for building gas works. About 5 miles of mains will be laid.

**Gin Machinery** will be wanted by Thomas B. Peirce, Warsaw, N. C.

**Grates, etc., for kiln and specifications of best and most approved kiln for burning and glazing sewer pipe** are wanted by the Pomona Terra-Cotta Co., Pomona, N. C.

**Machinery for ice factory and steam laundry** will be wanted after January 15 by William B. Bowron, South Pittsburg, Tenn.

**Price-lists of wood-working and iron-working machinery** are wanted by the Salem Iron Works, Salem, N. C.

**Proposals for plumbing, etc., for the sanitary improvement of the United States Treasury Building, at Washington, D. C.,** will be received until December 20 by the supervising architect.

**Saw Mill Machinery.**—Neely & Neely, Cabot, Ark., want to buy machinery, belting, etc., for saw mill, two gin stand condensers and feeders, one cotton elevator and corrugated iron for building.

**Saw Mill Machinery, etc.**—John T. Townsley, 92 East Second street, Cincinnati, O., wants to purchase for cash one band log mill, two large veneer saw mills, a 100 horse-power engine and boiler, a veneer cutting machine (knife at least 6 feet), and grinder, all to be in good working order.

**Spoke Lathes.**—Kennedy & Morelock, Martin, Tenn., want to correspond with spoke lathe manufacturers.

**Stamp Mill.**—Otto C. Scupin, M. E., Dawsonville, Ga., wants information as to the cost of a 20-stamp mill (4 batteries, 5 stamps each) for wet crushing, with shaft large enough to accommodate 20 additional stamps.

**Talc Mill.**—The Atlanta Talc & Soapstone Mining & Manufacturing Co., Atlanta, Ga., wants to purchase a mill that will grind talc into perfect floats.

**Tile and Sewer Pipe Machinery** is wanted by J. H. Connell, Staunton, Va.

**Wood-working Machinery.**—C. J. May, 45 West Congress street, Detroit, Mich., will soon want machinery for manufacturing light machine work; also light wood-working machinery.

## Adding Planing Mill.

INDIANAPOLIS, IND., Dec. 10, 1887.

*Editor Manufacturers' Record:*

I have returned from Chipley, Fla., where I located a saw mill. I am adding to it a planing mill and expect soon to add a shingle mill and box machinery. I am locating a colony at Chipley from Indianapolis for growing fruits. We have taken about 25,000 acres, and as soon as the fruit is started we will put up a canning and evaporating establishment. We are now getting stock subscribed for a large hotel, and are in need of a good hotel-keeper who will take some stock in it. I will return there about January 15 with another excursion party.

A. G. CHANDLER.

## Mount Airy Progressing.

MOUNT AIRY, N. C., Dec. 6, 1887.

*Editor Manufacturers' Record:*

A. J. Thompson will start his new plaid factory January 1st, 1888. A Baltimore gentleman is negotiating to erect an \$80,000 cotton factory. J. P. Rawley is negotiating with a Northern party to build an oak extract plant. J. F. & W. A. Moore's 3 story brick mercantile block is nearing completion. Sides & Spangh are building flour mills and planing mills,—run by water. J. F. L. Armfield will commence cigar factory January 1st, 1888. Business of the town has so increased that another bank is badly needed. Rufus Roberts is building one of the finest hotels in the country; 4 stories, brick, 115 rooms. J. P. RAWLEY.

## New Weave Mill.

HAW RIVER, N. C., Dec. 8, 1887.

*Editor Manufacturers' Record:*

We have erected a new weave shop of 216 looms, and installed an Edison electric plant in same; also United States plant, 300 lights, in old mill. Edison plant, 150 lights. CHAS. T. HOLT.

## Another Cotton Factory to be Built.

NEWNAN, GA., Dec. 6, 1887.

*Editor Manufacturers' Record:*

We are organizing a stock company here to build a \$100,000 cotton factory. The subscription books are now open and about \$50,000 subscribed first day.

R. D. COLE MANUFACTURING CO.

## To Manufacture Clothing.

ANNISTON, ALA., Dec. 6, 1887.

*Editor Manufacturers' Record:*

I will erect a business house, three-story, of brick, and manufacture clothing. I will altogether invest ten thousand dollars, and expect to open by next spring.

ISAAC LINSKY.

## Contracted to Build Water Works.

CHATTANOOGA, TENN., Dec. 10, 1887.

*Editor Manufacturers' Record:*

We have contract for the Athens Water Works, comprising a system of 8-foot pipe, pumps, boiler and stand pipe. We expect to erect a larger plant in the spring, but have no idea at present that it will be exclusively a bridge plant. We are building bridges in connection with our other work.

UNION IRON WORKS CO.

## To Build Woodworking Mill.

SUFFOLK, VA., Dec. 5, 1887.

*Editor Manufacturers' Record:*

We propose to build a mill as soon as spring opens up thoroughly to cut veneer and manufacture berry baskets, butter trays, make mouldings, sash, blinds, doors, and will also run grist mill. Our location is bordered on the north by W. & W. R. R., on the east by C. & D. R. R., and on the west by S. & C. R. R. The Gay Manufacturing Co., of this place, propose erecting mills and dry kilns to cut and dry 100,000 feet lumber per day. MACNAY & MANNING.

## Machinery Wanted.

SALEM, N. C., Sept. 5, 1887.

*Editor Manufacturers' Record:*

We are contemplating erecting a branch of our works in northwest Arkansas, in the vicinity of Van Buren, Rogers, or somewhere in that part of the State, but have not decided yet positively in regard to the location. We want price-lists from different manufacturers in iron-working machinery; also wood-working machinery, as we expect to establish an iron and wood shop in that vicinity. SALEM IRON WORKS.

## Electric Lighting in the South.

WASHINGTON, D. C., Dec. 12, 1887.

*Editor Manufacturers' Record:*

The following cities have adopted the Thomson-Houston system of electric lighting during the past three or four months: Durham has increased her plant 50 arc lights and is now thinking of putting in a plant of the new alternating system. Greensboro, N. C., has awarded the contract to C. M. McNett for lighting her streets, and he is now increasing that plant double its present capacity. Staunton, Va., has added a 50 light dynamo to its plant and are running 100 new series incandescent lamps, together with some arc lights for commercial lighting, and is giving perfect satisfaction. Petersburg, Va., has 150 arc lights used for lighting the entire city, and some for commercial lighting. Manchester, Va., has 100 lights and 600 incandescent. West Point, Va., has just started the new Thomson-Houston alternating system, and is giving entire satisfaction. Fredericksburg, Va., awarded the contract to the Rappahannock Electric Light & Power Co. for lighting her streets and the lights have been in operation for about 30 days, and the lights are giving perfect satisfaction, so much so that the company is doubling its capacity, and the business is quite favorable; they are using water power. Parkersburg, W. Va., has added a 40 light dynamo with arc lamps to her Westinghouse system of incandescent lighting. Charleston, W. Va., has just awarded the contract to the Kanawha Electric Lighting Co., of that city, and the work is under construction; lights are expected to be turned on January 1st. I have established many more plants. C. M. MCNETT.

## Will Move Plant South.

JACKSON, MISS., Dec. 6, 1887.

*Editor Manufacturers' Record:*

Messrs. Martin & McAfee, of Lake View, Michigan, have been granted a three acre lot of city property upon Pearl river, and will shortly remove their whole plant here from Michigan. Their plant consists of a large saw mill, shingle mill and barrel and stave machinery, estimated at \$50,000. These gentlemen come here to stay, having spent months in investigating the advantages of this locality. G. D. BUSTAMANTE.

## Saw Mill and Handle Factory.

LAFAYETTE, GA., Dec. 3, 1887.

*Editor Manufacturers' Record:*

I have taken initiatory steps to erect lumber mill and handle factory at this place. Have purchased a Blymyer saw mill, 40 horse-power, which I hope to get on the ground next week. Other machinery will follow as soon as the C. R. & C. road is finished to this place. O. E. WATERS.

## New Industries at Asheville.

ASHEVILLE, N. C., Dec. 10, 1887.

*Editor Manufacturers' Record:*

The Asheville Ice & Coal Co., of Asheville, N. C., purchased an Arctic ice machine some time since. The erection of it will commence this month and will have a capacity of about ten tons a day. Mr. Collins, of the company, is building a large planing mill, which will be occupied and run by the Asheville Lumber & Manufacturing Co. A roller flour mill of 50 barrels capacity and a corn meal mill will be erected in the spring. X. Y. Z.

## Will Erect Flour and Corn Mill.

OAKLAND, KY., Dec. 12, 1887.

*Editor Manufacturers' Record:*

The citizens of this place some time since offered me some inducements to put up a flouring and corn mill at this place, which I accepted. Having had no experience in mills, Wm. I. B. Wilford, of Bowling Green, this county, a mill man, took the contract and will put up a mill here. J. S. JORDAN.



## Moving Southward.

As elsewhere stated, arrangements have been finally completed by the United States Rolling Stock Co. for building immense car works at Anniston. This company has an extensive plant at Urbana, Ohio, which, it was reported a few months ago in the MANUFACTURERS' RECORD, would be transferred to Decatur. Recently it has been supposed that there had been some hitch in the negotiations which had caused an abandonment of this, but the following telegram from the president of the company to a gentleman at Decatur settles the matter in favor of that town:

"A meeting has been held in London. You can state that the Urbana Car Works will at once be removed to Decatur, Ala. A. HEGEWISCH."

This adds one more great enterprise to the long list of which that rapidly growing town can boast. As stated by us months ago, the Anniston and Decatur car schemes are entirely separate, although Mr. Hegewisch will, we suppose, be interested in both. Decatur secures the removal of the large plant now at Urbana and Anniston gets a new plant of immense capacity added to its present works.

The effect of these great industries will be to add vastly to the prosperity of all Alabama. Their establishment is the carrying out of that diversification of Southern industry, so persistently advocated in the MANUFACTURERS' RECORD; it means that the South is rapidly becoming more independent, that she means not simply to turn out pig iron and lumber for shipment North, to come back in the shape of the finished product, but to build diversified enterprises that, using these articles as their raw material, will manufacture the cars, the locomotives, the agricultural implements and thousands of other things heretofore largely purchased of other sections.

## To Develop Marble Quarries.

KNOXVILLE, TENN., Dec. 9, 1887.

*Editor Manufacturers' Record:*

On the 2d inst. a charter was granted by West Virginia to myself and nine others, under the name and style of the Oriental Marble Co., principal office at Washington, D. C.; quarries and works at Knoxville, Tenn. Under the code we cannot meet under 21 days. Our call for general meeting for election, etc., was published last Monday. Meeting to take place in Washington December 28, when we will start operations at once. Our capital stock is placed at \$50,000, in shares of \$50 each. We will at once put in plant for quarrying, and some light mill machinery—say two gangs of saws; cost will hardly exceed \$7,000. Will add machinery as the business requires. E. L. LAMMIE.

## Gas and Water Works.

BALTIMORE, MD., Dec. 10, 1887.

*Editor Manufacturers' Record:*

The plans for our water works as well as the gas works will be finished next week. The contract has been taken by Mr. George B. Morton. The output of gas will be about 500,000 cubic feet per day and the consumption of water about 1,500,000 gallons. On account of the numerous complaints on the part of the State Board of Health concerning the impurities of the drinking waters of Baltimore county, we are adopting the Hyatt system of filtration and purification, which will make the drinking water chemically pure. Work will be commenced on the water and gas works within 30 days. Works will cost completed about \$300,000.

CONSUMERS' WATER & ILLUMINATING CO.,  
GEO. B. MORTON, Treas.

## A \$300,000 Company to Build Houses at Anniston.

ANNISTON, ALA., Dec. 13, 1887.

*Editor Manufacturers' Record:*

The Anniston City Land Co. have organized a construction company to build dwellings, and will commence work at once. The capital will be \$300,000 to \$400,000. E.

## Erecting Flour and Corn Mill.

CLARKSVILLE, TENN., Dec. 7, 1887.

*Editor Manufacturers' Record:*

We are going to grind corn, wheat and hominy and card wool, with a view of putting in all necessary machinery for a first-class woolen mill. CARLISLE & CO.

## To Build 100 Coke Ovens.

TRUSSVILLE, ALA., Dec. 6, 1887.

*Editor Manufacturers' Record:*

The Trussville & Cahaba River Land Co. desire building a hotel at an early day, to cost \$10,000 to \$15,000. The place of the building has not yet been agreed upon. The Birmingham Furnace & Manufacturing Co. will put up 100 of their coke ovens at Trussville. Work on same to commence soon. Hickman & Hewett are building a dryer for brick with a capacity of 25,000 daily output.

TRUSSVILLE & CAHABA RIVER LAND CO.

## To Build a Charcoal Furnace.

TALLAPOOSA, GA., Dec. 7, 1887.

*Editor Manufacturers' Record:*

The Tallapoosa Furnace Co. was organized on the 29th of November, with a capital stock of \$100,000, and the following officers were elected: O. W. Bullock, of Springfield, Mass., president; Jas. A. Burns, Atlanta, Ga., vice-president and general manager; D. Carleton, Hartford, Conn., treasurer, and I. J. McDonald, Tallapoosa, Ga., secretary. We propose to begin work on the furnace at once. I. J. McDONALD.

## Will Purchase Additional Machinery.

ROCKINGHAM, N. C., Dec. 8, 1887.

*Editor Manufacturers' Record:*

Our company has determined to increase the capital stock 25 per cent., and invest in additional machinery. We have not yet determined the amount of spindles, etc., that we shall add to our mill, but shall make the increase. ROBERDALE MFG. CO.

## Foreign Exchange Quotations.

ALEXANDER BROWN & SONS.

BALTIMORE, Dec. 14, 1887.

*Sterling.—Steady.*

Selling.	Commercial.
60 days.....	60 days.....47 1/2 to 48 1/2
3 days.....	3 days.....48 1/2

*Francs.—*

Selling.	Commercial.
60 days.....	60 days.....52 1/2 to 53 1/2
3 days.....	3 days.....53 1/2

*Richmarks.—*

Selling.	Commercial.
60 days.....	60 days.....93 1/2
3 days.....	3 days.....94 1/2

*Guilders.—*

Selling.	Commercial.
60 days.....	60 days.....39 1/2
3 days.....	3 days.....39 1/2

## Baltimore Stock Exchange Quotations.

Reported by ALEXANDER BROWN & SONS, Bankers, Baltimore.

BALTIMORE, Dec. 14, 1887.

	NEW YORK	ASKED.
Virginia 6's Consols C.....	49 1/2	48
Virginia 3-4-5 10-40's.....	37	36
Virginia 3's, new.....	65	66 1/2
N. Carolina 4's.....	94 1/2	95
N. Carolina 6's.....	118	120
Louisiana 4's.....	80	95
Norfolk Water 8's C.....	127 1/2	130
Atlanta & Charlotte.....	83	85
W. & A. Aug. 1st, 7's.....	114	116
W. & A. Aug. 6's.....	127	128
Atlanta & Char. 1st, 7's.....	120	121
Atlanta & Char. Income 6's.....	98	100
Col. & Green. 1st, 6's.....	101 1/2	103
Col. & Green. 2d, 6's.....	74	75
Va. Midland. 3d 5-6.....	108	110
Va. Midland. 4th, 3-4-5.....	69	70
Va. Midland. 5th 5's.....	100	102
Char., C. & Aug. 1st, 7's.....	111	112
Char., C. & Aug. 2d, 7's.....	110	111
Ca. Pacific 1st, 6's.....	108	109 1/2
Ca. Pacific 2d, 6's.....	49	50
Western N. Carolina Cons'd 6's.....	90	92
Cape Fear & Y. Valley 6's.....	93 1/2	94
New Orleans Gas, 1st, 5's.....	99	103
Atlantic Coal.....	100	101
Silver Valley.....	130	132

## Flouring and Grist Mills to be Built.

GREENSBORO, N. C., Dec. 9, 1887.

*Editor Manufacturers' Record:*

Steam flouring and pearl hominy and grist mills are to be operated here. The parties expect to go to work manufacturing by the middle or latter part of February, 1888. Mr. G. M. Hazel is the proprietor of the ice factory, and will be ready for next year's trade. Z. W. WHITEHEAD.

## Contemplate Moving to the Southwest.

JACKSON, MICH., Dec. 5, 1887.

*Editor Manufacturers' Record:*

I contemplate moving my mill into the Southwest another season, unless we should succeed in finding natural gas in this city. When I move into the Southwest I will locate on a water power, if possible, where the raw materials for paper making are plenty. So far I have only had some little correspondence with San Antonio citizens, but think of visiting the Southwest this winter and look the ground over. W. D. BRADY.

MARTIN, TENN., Dec. 6, 1887.

*Editor Manufacturers' Record:*

We have purchased in Arkansas 2,300 acres of white oak timber lands, and expect to move our stove factories there in the early spring, and connect a spoke factory with it. Would like to correspond with some spoke lathe manufacturers. KENNEDY & MORELOCK.

LITTLE ROCK, ARK., Dec. 7, 1887.

*Editor Manufacturers' Record:*

The Masonic Fraternity contemplate erecting at an early day a Masonic Temple, to cost from \$40,000 to \$50,000. The site has already been bought for \$18,000 and paid for. J. A. HARRY.

## To Build an Ice Factory.

SOUTH PITTSBURG, TENN., Dec. 6, 1887.

*Editor Manufacturers' Record:*

I am organizing a company for ice making and steam laundry; capital \$18,000. I shall not be in the market for anything until the middle of January. WM. M. BOWRON.

## Two Cotton Factories to be Built.

SALISBURY, N. C., Dec. 12, 1887.

*Editor Manufacturers' Record:*

The Salisbury Cotton Mills were incorporated to-day with a subscribed capital of \$62,500. Erection of mill will begin as soon as weather will permit. The organization of a second cotton mill in Salisbury was assured to-day. \$38,000 were subscribed for this to day. We are laying foundations for substantial advancement and prosperity. THEO. BUERBAUM.

## To Remodel Flour Mill.

MADISON MILLS, VA., Dec. 12, 1887.

*Editor Manufacturers' Record:*

We have awarded the contract to Edward Corbett, of Washington, D. C., to remodel our mill to the full roller system. T. O. GILLUM & CO.

## Will Enlarge Machine Shops.

CINCINNATI, O., Dec. 12, 1887.

*Editor Manufacturers' Record:*

We will enlarge our machine shops at Chattanooga. CINCINNATI SOUTHERN RAILROAD CO.  
JNO. C. GAULT, Gen'l. Man.

**O. R. MAKEPEACE & CO.**  
ARCHITECTS and MILL ENGINEERS  
PROVIDENCE, R. I. Plans, Specifications and Estimates furnished for Cotton and Woolen Mills.

500,000 acres mineral rights, including cannel and coking coals, oil, gases and minerals, in East Kentucky, on projected railroads; \$1 to \$5 per acre. Well timbered coal lands, \$1 to \$5 per acre. 16,000 choice poplar trees, \$1 per tree. 8,000 walnut, white oak and cherry trees ORANGE. Titles perfect. W. J. HORSLEY, Whitesburg, Ky.

D. W. K. PEACOCK,  
Real Estate Agent,

CARTERSVILLE, GA.

Minerals a Specialty.

Refers to THE HOWARD BANK, Cartersville, Ga.  
J. W. RAWLIN, Atlanta, Ga.

## Manufacturers' Bureau, of Fort Smith, Ark.

Invite correspondence and propositions from manufacturers with a view to locating at Fort Smith. Fort Smith is the center of an immense semi-anthracite coal, lumber, iron and cotton region, with railroad facilities giving close connections with the markets of Kansas, Texas, Missouri, Indian Territory and Arkansas. Population in 1880, 7,500; in 1886, 14,000; in September, 1887, 18,000.

REAL ESTATE IN A  
Booming Alabama Town  
FOR SALE.

Three Hundred Choice Business and Residence Lots in the CITY OF ANNISTON.

This property is the best in the city, and having been bought before the boom, will be sold at prices affording investors a rare opportunity to make certain and handsome profits. Address

F. M. HIGHT, Anniston, Ala.

Gallatin, Tenn., Cotton Factory  
FOR SALE.

Factory is situated immediately on Chesapeake & Nashville R. R., and right in city of Gallatin, on L. & N. R. R. Factory has 200 horse power engine, 195 looms, with sufficient machinery to run the looms to their full capacity; never failing water for all purposes. Machinery all in good running order. All machinery automatic and of latest improved kind. Makes from 7,000 to 7,500 yards of goods per day. Looms 4-4, but arranged to make, when desired, either 3 or 5-4. There is also attached to factory machine grist mill; in addition large double brick house, also eleven cottages for operatives. Property cost \$100,000. Will be sold at a bargain. Machinery will be sold separately if desired. There are some 30 acres of land adjoining factory. For particulars address

BANK OF GALLATIN,  
Gallatin, Tenn.

## COPY OF ORDINANCE

Passed by the Council of the Town of West Point, Virginia, on the 21st day of April, 1879, and re-enacted and approved on the 23d day of March, 1887.

Be it ordained by the Council of the Town of West Point, Va., that any party or parties investing in property in this town for the purpose of conducting any enterprise, such as manufactories, packing houses, &c., and actually operating the same, they shall be exempt from all corporation taxes upon such property, and all machinery and improvements thereon, for the term of ten years from the purchase of such property.

It is also ordered that the Mayor is hereby instructed to advertise this ordinance in the "MANUFACTURERS' RECORD," a paper published in the City of Baltimore, Md.

E. WILKINSON, Mayor.

THE SOUTH BALTIMORE  
Harbor & Improvement Co.

Of Anne Arundel County,

Offers for sale or lease at moderate rates BUILDING LOTS on paved streets upon its property on Curtis Bay, about one mile southeast of Light Street Bridge—the southern boundary of Baltimore city—and near the extensive South Baltimore Car Works just completed and in operation. It also offers suitable locations, with or without water front, for all kinds of manufactories, with special inducements to persons engaged in small manufacturing industries. Particular attention is directed to manufacturers east and north of Baltimore to this locality which, besides its proximity to the Southern markets, has many advantages, such as railroad and water communications, cheap house rents, easy access to the city, etc. The location is high and healthy, rising to about 160 feet above tide-water. For further particulars apply to

WM. S. RAYNER,

Pres't. S. B. H. & I. Co.

8 E. Lexington St. BALTIMORE.



**The No. 7 Flooring Machine.**

Rapid feed floorers have occupied the attention of manufacturers to a very great extent. Messrs. Goodell & Waters, Philadelphia, were among the first to appreciate the demand for that class of machinery, and in producing their now famous "Keystone" they have met with the most satisfactory results. The No. 7, as illustrated by the accompanying engraving, is designed mainly

further information we refer our readers to the manufacturers, Messrs. Goodell & Waters, Philadelphia.

**Double Endless Bed Surfacers.**

The accompanying illustration shows a double endless bed surfacer made by the Bentel & Margedant Co., of Hamilton, Ohio. Of this surfacer the manufacturers say:

"It is a well-known, practical and scientific

the feeding movement, moves on with the material, bringing it under and past the rotating cutterhead. There is nothing in the device to slip, because the very rest or support of the lumber moves along. It is all "go."

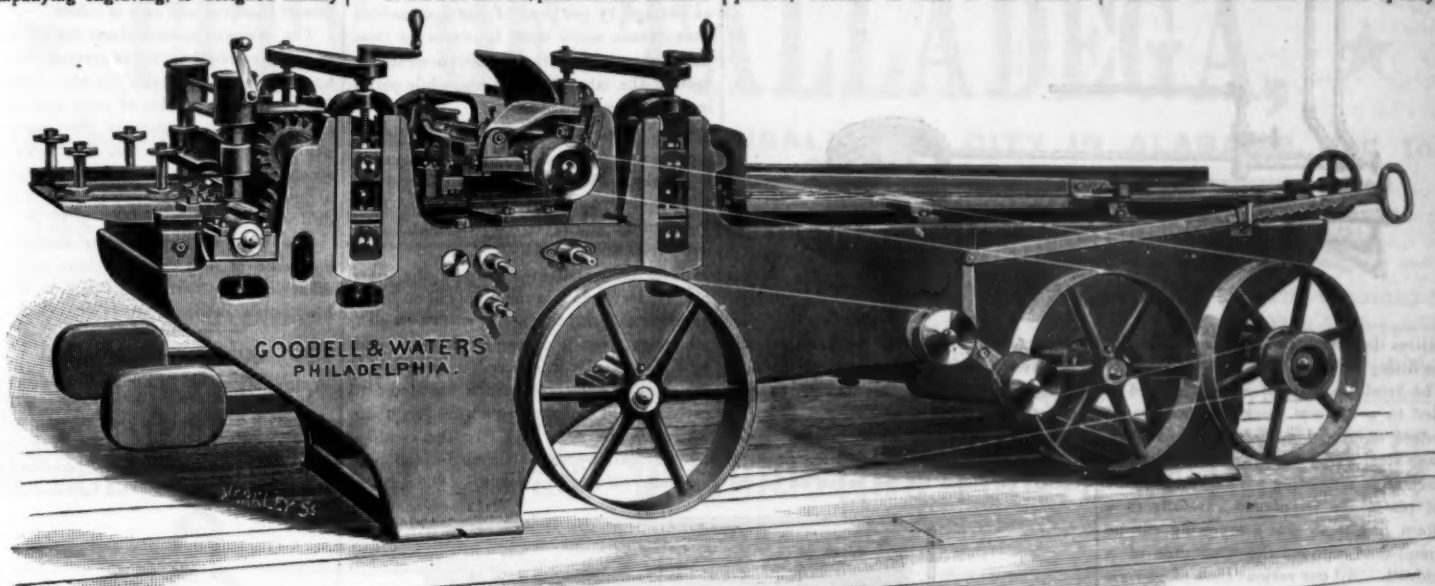
Notwithstanding the advantages of the chain-feed or endless bed planer, as regards its superior feeding power, it has not found its way into all shops where lumber is planed, because in most of this class of

strongest and most reliable part in the construction of our surfacer.

We also fully guarantee that there is no faulty wear, or any cutting of the sliding surfaces, either of the traveling bed or of the slides on which it travels.

In the construction of our endless bed planer we have fully removed the cause of this complaint and serious obstruction.

Before explaining the construction of the machine in the whole we will specify the



THE NO. 7 FLOORING MACHINE.

as a medium size rapid feed floorer, embodying all the good qualities and advantages of the "Keystone." The No. 7 is made in two sizes to work 7 inches and 14 inches wide, is capable of producing moldings of the finest quality, and in connection with its capacity as a standard floorer, places it in a most favorable position before those interested in

cally-proven fact that among the various kinds of planers or surfacers none is more powerful and positive in feeding than a well-arranged "chain-feed," or endless bed surfacer. It will feed heavy or light, rough or smooth, and damp, wet or icy material when other planers will fail.

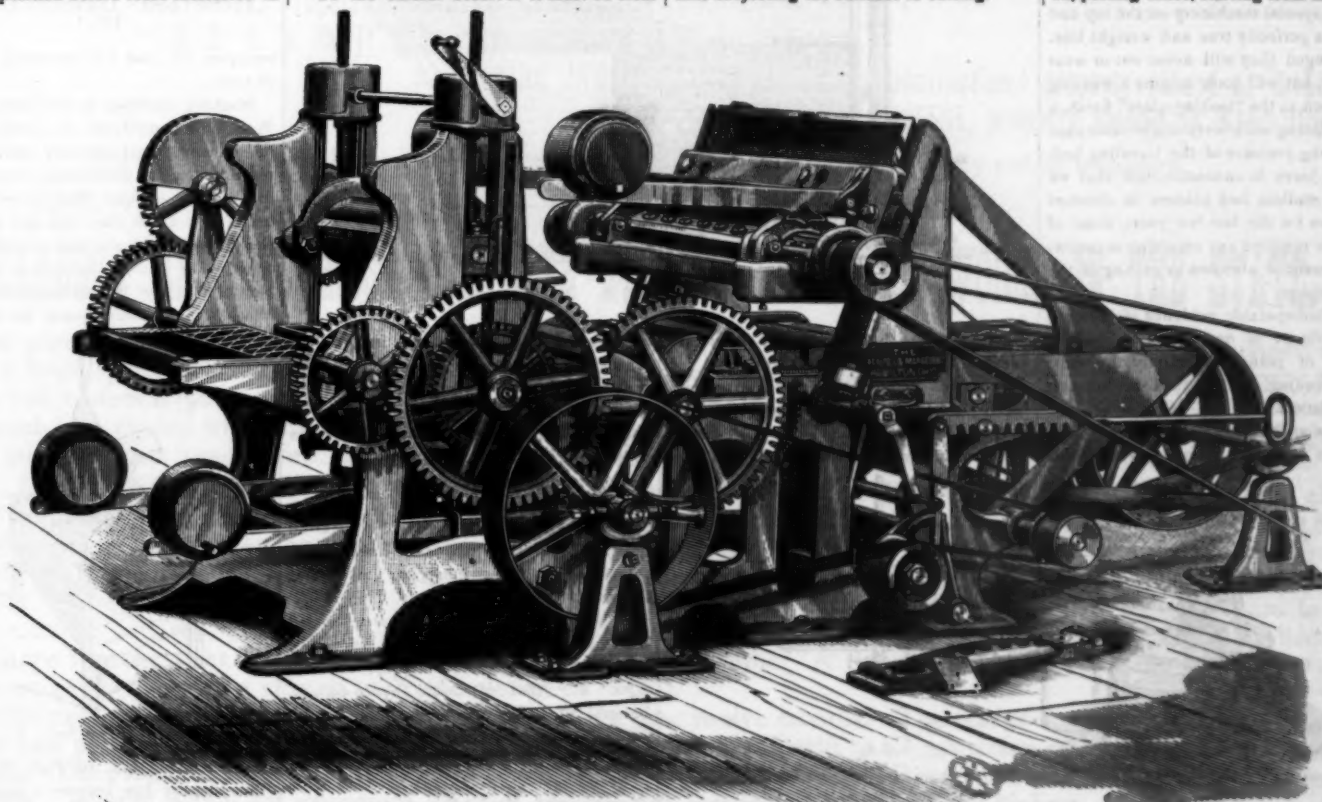
To the careful observer it must be clear

planers the traveling chain-bed, or the supporting slides, have very soon worn out of line, and required expensive repairing.

It was found that it was not practical to oil the sliding surfaces and keep them so, as every slat in the traveling bed, and the fine shaving dust, would wipe the lubricator off, thus subjecting the surfaces to cutting.

special constructions referred to, which are the most important parts.

Referring to the illustration which shows in the front one of the series of slats comprising the traveling bed, it will be noticed that the form and design of the slat is novel, being a slat strengthened by a hollow cored supporting brace, starting from the ends and



TWENTY-SIX-INCH DOUBLE ENDLESS BED SURFACERS.

improved wood-working machinery. The makers have endeavored as far as possible to make the machine simple and effective in every detail, reducing the number of working parts to a minimum. The pressure bars are of the most approved designs. The matcher heads are adjusted at the side of the machine by a crank. Changes for various sizes may be effected very quickly. For

that the immense friction on a stationary bed or table, on which the material slides by the action of the feeding rollers, retards the feeding process, causing great loss of power, and requiring such undue pressure of the feed-rollers that they often gouge into the material without moving it forward.

In endless bed or chain planers the whole bed surface, which in other machines resists

As the manufacturers of this endless bed planer we are fully aware of this mechanical difficulty, and also of the otherwise superior mechanical advantages of this class of planers, and we desire to state here, at the beginning of our specifications, that we do hereby guarantee that this construction and arrangement, which in many chain or endless bed planers is weak and faulty, is the

increasing in proportion toward the middle, all cast in one piece. One of the ends of the slat shows it with the plate removed, exposing a recessed chamber, which is filled with cotton-fabric for carrying a quantity of lubricating oil. The other end of the slat shows this chamber covered by a hard cast-steel plate provided with five holes. The center hole is an oil-hole and the four others

for rivets to fasten the steel plates to the slats.

Every slat is "faced" with a hard cast steel sliding plate, which is removable should there be occasion for it. Every slat carries its own permanent supply chamber of lubricating oil, from which the lubricant is uniformly and automatically discharged when needed, and being hollow, it

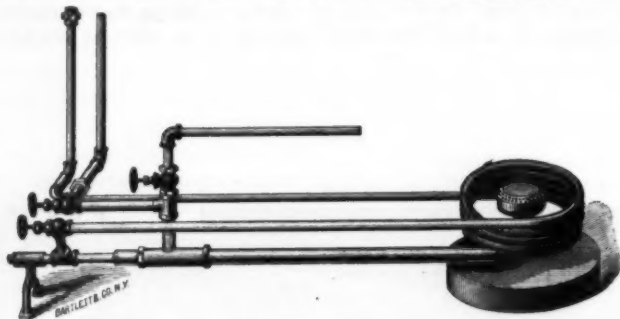


FIG. 1.

equalizes the pressure of the air on the two close fitting surfaces.

The steel plates used are not planed or milled to a uniform thickness, but are of standard sizes and measurements as found in any steel warehouse, ground to a smooth surface after tempering. The rests for the steel plates are all planed carefully to a uniform height so that a renewing can be accomplished without the assistance of a machinist. All our various sizes of endless bed planers have only two supports for the endless bed, so that an uneven wearing or a rocking motion of the slat or bed, as is the case with planers having three or four supports, cannot take place.

The wider planers are supplied with stronger braced slats and broader sliding faces and rails, but all our rails on which the endless bed travels are made in full thickness of the finest tool steel, hardened to a degree accomplished only by specially arranged devices. They are carefully ground by special machinery on the top and bottom to a perfectly true and straight line. Thus arranged they will never cut or wear irregularly, but will soon assume a wearing finish known as the "looking-glass" finish, a surface offering only very slight resistance to the sliding pressure of the traveling bed.

We beg leave to announce here that we have had endless bed planers in constant hard service for the last few years, none of which have required any repairing or renewing on account of abrasion or cutting of the sliding surfaces.

This is indisputable evidence of the eminent superiority of our system of making this class of planers, not only the most powerful feeding, but also the best and most durable planers.

A glance at the illustration will convince the reader that the other parts of these

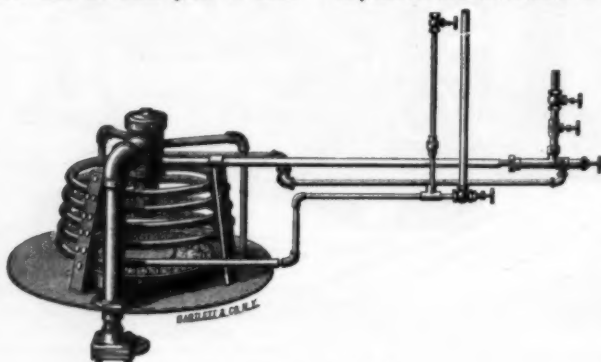


FIG. 2.

planers are arranged and constructed with the utmost care and regard for strength and utility. Nothing has been left undone to accomplish our object in making them the strongest and most commodious tools of their class."

Subscribe to the Manufacturers' Record.

### An Apparatus for Burning Petroleum and Liquid Fuels.

The Empire Hydro-Carbon Co., 18 Exchange place, New York, with factory at 428 East 23d street, same city, are manufacturing an apparatus for the combustion of petroleum and liquid fuels, in stationary, railroad and marine boilers, ranges, glory holes, sears,

pottery furnaces, chemical stills, &c., which has proved a remarkable success, particularly as regards economy, calorific power and perfect control.

As shown in accompanying cut, the burner is placed at the front of the boiler, where it receives the steam for the induction of the

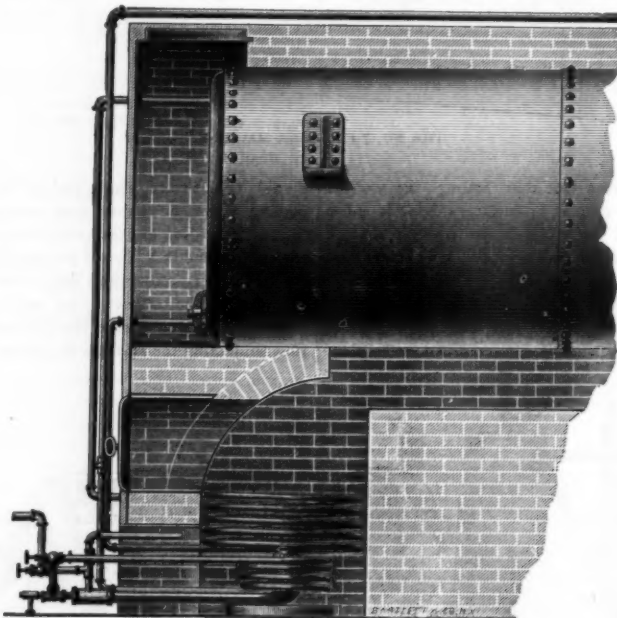


FIG. 3.

oil and air from the steam dome. These are admitted through suitable valves, and the quantity of each component regulated and thoroughly mixed, by which perfect combustion is produced.

Experience with the burners of this com-

"Petroleum is a pure hydro-carbon and its combustion yields nothing but water and carbonic acid, while coal contains sulphur, phosphorus, and other deleterious minerals objectionable for metallurgical purposes and other operations, and its combustion not being controllable, it carries off a large proportion of unconsumed air, carbonic oxide and particles of ashes.

From losses inherent in the condition and nature of the combustible.—Coal contains on an average 15 per cent. of non-combustible constituents, which must be deducted from its weight to obtain its combustible elements, besides the labor in handling, while petroleum is all combustible.

Coal, burned by natural draft, requires a high temperature of escaping gases and a high chimney to create the necessary draft, which amounts to one-quarter of the fuel. Petroleum requires no draft, but only a conduit for escaping gases.

From the inherent nature of the grate fire, even with double the supply of air, large quantities of carbonic oxide will be formed, producing, even if consumed above the fuel by air artificially introduced, only one-third the calorific power of carbon consumed to carbonic acid, but proving a total loss if not consumed above the fuel. In the combustion of liquid hydro-carbon no formation of carbonic oxide is probable, as the compo-

nents are fully under control, and the air does not pass through a layer of incandescent fuel.

Cleanliness is in favor of petroleum in every respect, leaving no residuum or ashes to be cared for.

Labor.—The use of coal requires much more labor in the way of hauling, caring for the ashes, etc., and in the case of marine boilers, severe labor from many men. With petroleum, one man can care for several furnaces.

In thermal effect the temperature of a coal fire in an ordinary furnace, from the nature of its combustion and air supply, is seldom 2,700° F.; that of liquid hydro-carbon, because of being under complete control, comes nearer to its theoretical value, and gives in a suitable furnace 4,900° F.

Economy.—The total heat of combustion of one pound of coal is 14,000 units, while that of one pound of petroleum is 27,500 units. With coal, from causes of loss enumerated above, about 50 per cent is uselessly expended in creating draft, heating an excess of air, formation of carbonic acid, ashes, etc.

With petroleum, nearly all the theoretical value of its heat can be practically produced and utilized. Thus in a steam boiler, eight pounds of water can be evaporated with one of coal, but 24 pounds of water can be evap-

orated with one of petroleum, or three times as much. This does not take into consideration the increase of heat from the combustion of decomposed steam, which amounts to considerable.

The above is taken from the results of actual work, and the comparative value shown is that 100 gallons of oil equals one ton of coal. With the cost of oil at 2½ cents per gallon, coal would have to be bought at \$2.50 per ton to be equal; then the added cost of handling and care of ashes."

The company possess about thirty patents in hydro-carbon burning apparatus, and may be considered pioneers in the industry. They have for a number of years been working towards perfection in this particular field, with the results that they have constructed burners for the perfect combustion of petroleum, applicable to every field of industry.

The Empire Hydro Carbon Company is composed of well known citizens and capitalists of New York, with Judge E. T. Fells as president.

### Washing Machines.

It is very noticeable that of late dealers in the South have found a growing demand for certain labor-saving household devices and specialties such as wringers, washing machines, gasoline and oil stoves, carpet



FIG. 1.

sweepers, etc., and it is becoming a big item of trade.

Washing machines in the North, East and West are considered by every practical housekeeper a real necessity, and most people who now use them wonder how they ever did so long without them, providing their machine is a first class one and not one of the numerous cheap and worthless imitations. The accompanying cuts give a fair idea of the Fort Wayne Improved Western Washer, manufactured only by the Horton

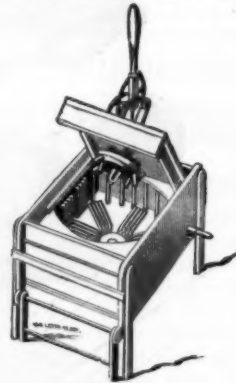


FIG. 2.

Manufacturing Co., of Fort Wayne, Ind. This washer has become a staple article, tried and sold on its merits and not found wanting. They are guaranteed to give satisfaction, and dealers are authorized to refund the price paid if not as represented and satisfactory. It saves clothes, time, labor, fuel and soap, and pays for itself in a short time. Any jobber or dealer can easily build up a big trade on these goods, as they please customers and lead to other sales. An agent is wanted in every Southern city and town for the coming year. Terms can be made now by addressing Horton Manufacturing Co., Fort Wayne, Ind.



# ALABAMA'S GREAT MINERAL WEALTH

SURROUNDS THE

## ★ CITY OF TALLADEGA, ★

Which, according to statistics, is the **MOST HEALTHFUL CITY IN ALABAMA**, and the County Seat of Talladega County.

**THE CITY HAS A POPULATION OF 5,000, AND ITS POPULATION IS RAPIDLY INCREASING.**

**T**ALLADEGA is on the main line of the E. T. V. & G. Railroad, the A. & A. Railroad, and is the present terminus of the T. & C. Railroad. Work is rapidly progressing on the Birmingham & Savannah Air Line Road, between Birmingham and Savannah, and within twelve months this road will be completed via Talladega from Birmingham to Savannah, which will place Talladega on the direct line from Birmingham to deep water on the Atlantic, making

### TALLADEGA ONE OF THE BEST DISTRIBUTING POINTS IN THE STATE.

THE CITY HAS

### AN EXCELLENT SYSTEM OF COMMON GRADED SCHOOLS,

With a scholastic population of 500, and **THE MOST COMMODIOUS AND ATTRACTIVE PUBLIC SCHOOL BUILDING IN THE STATE.** The main building is a three-story brick, slate roof structure, well ventilated, heated by steam; has accommodations and seating capacity for 500 pupils. This school is owned and sustained by the city. All branches of English literature, foreign languages, music, the sciences and art, are taught for a nominal tuition. Among other educational institutions are the following:

**SYNODICAL FEMALE INSTITUTE**, Property valued at \$50,000.

**D. D. & B. INSTITUTE**, Property valued at \$150,000.

**BLIND INSTITUTE**, (in course of construction,) property valued at \$150,000.

**FOSTER COLLEGE**, property valued at \$150,000.

No other city in Alabama has so many educational institutions and so many public buildings.

### ← TALLADEGA HAS THE MOST COMPLETE SYSTEM OF WATER WORKS IN THE STATE. →

The stand pipe has a capacity of 175,000 gallons, and into this reservoir a supply of fresh, clear, pure water is pumped every day from a large spring located in the heart of the city, which discharges over 2,000,000 gallons per day. The gravity pressure from this system is 90 pounds to the square inch in the business portion of the city. The city has broad streets, well macadamized and shaded with beautiful trees, and is well lighted with a **SUPERIOR QUALITY OF GAS**. Sixty fire plugs and forty gas lamps protect against fire and illuminate the streets.

**A LARGE FURNACE PLANT** gives employment to thousands of hands, and makes a high grade of chilled car-wheel iron from ores, limestone and coal within ten minutes haul by rail, or an hour's haul by wagon. **FOUR LARGE LUMBER MILLS**, with an aggregate daily capacity of 200,000 feet of lumber, cut from the long-leaved yellow Pine of this country. **FOUR BRICK YARDS** are in active operation. A **SASH, DOOR and BLIND FACTORY**, a **FOUNDRY, MACHINE SHOP, FLOUR MILL, COTTON-SEED OIL MILL**, and various other industries are in successful operation, and the **TALLADEGA ICE CO.** cools the thrifty population with pure ice at 50 cents per hundred. Another large furnace plant will be completed within the next ten months. A Spoke and Handle Factory and many other industries are projected, with a view to early completion.

Taxable property has increased 100 per cent. within the past twelve months. The rate of taxation is limited in the city charter to half of one per cent., and the city offers an exemption from taxation to all manufacturing enterprises for a period of ten years. The county of Talladega supplies more crude material, in the way of minerals and timber, than any other county in the State. Almost within the corporate limits of the city are extensive deposits of the highest grades of limonite ores, yielding 50 to 58 per cent. metallic iron, with only a trace of phosphorus, and limestone abounds in the greatest abundance. Coal is within twenty miles by rail.

**THE TALLADEGA LAND & IMPROVEMENT CO.** owns 5,000 lots suitable for residences, business and manufacturing, in and adjacent to the city. Lots are donated to manufacturing enterprises, and liberal inducements offered to actual settlers. **SPRING LAKE PARK** is owned by this company, and it is being made the most attractive resort in the State. The lake covers an area of seven acres, and is a beautiful sheet of clear spring water. Parties seeking a healthy climate, free from malaria and epidemics, and a prosperous city, are invited to visit Talladega. Address for maps, etc.

**The Talladega Land & Improvement Co.,      ÷      Talladega, Ala.**

# ATHENS, East Tennessee

THE COMING

→ Iron and Manufacturing City of the South. ←

Athens is the county seat of one of the most fertile counties in East Tennessee. The health of the city is unsurpassed, and is **ABSOLUTELY FREE FROM ALL MALARIAL OR EPIDEMIC DISEASES**. The surrounding scenery is very fine. From the main avenue the whole valley of East Tennessee can be seen, from the Cumberland Mountains on the west to the Great Smoky Mountains on the east; some of the tallest peaks east of the Rockies being in full view. **FINE MINERAL SPRINGS** are adjacent and are popular summer resorts. The society of Athens is excellent. A cordial welcome is extended to all law-abiding people locating in the town. The **EDUCATIONAL FACILITIES** are good. Beside public and preparatory schools, Athens is the seat of **THE GRANT MEMORIAL UNIVERSITY**, which has an enrollment of over 300, and whose graduates include some of the most distinguished citizens in the country. Among the industries and institutions of the place in active operation are:

**THE ATHENS BUILDING & LOAN ASSOCIATION, \$250,000.**      **THE ATHENS WOOLEN MILLS, \$100,000.**

**THE FIRST NATIONAL BANK, \$50,000.—To be increased at once.**

**FOUNDRY & MACHINE SHOPS, \$25,000.**

**FURNITURE WORKS, \$15,000.**

**FLOURING MILLS, \$20,000, etc.**

500 men are now at work on the new railroad from Athens to the

## RICHEST IRON FIELDS IN THE SOUTH.

JUST EAST OF THE TOWN.

Only eight miles from Athens are **VEINS OF RED FOSSILIFEROUS ORE 11½ FEET THICK**, and 4 to 12 miles beyond are **THE LARGEST DEPOSITS OF BROWN ORES IN THE SOUTH**. The ores of both varieties, in addition to being inexhaustible, are both superior in quality to any ores of either variety at present mined in the South. An assertion that can be sustained. Coke can now be obtained at the lowest prices, and in addition a new railroad is now projected to the Cumberland Coal Fields, only 22 miles distant. These roads will give Athens **UNSURPASSED SHIPPING FACILITIES**. The road under construction will penetrate large deposits of Tennessee Variegated Marble; also an Unopened Timbered Region, and will develop the

### *Largest Colored Slate Deposits in the United States.*

These quarries are now being opened, and are pronounced by experts Absolutely Inexhaustible, and equal in quality to the finest Vermont Colored Slate.

## The ATHENS MINING & MANUFACTURING CO.

Have alone just contracted for the erection of over

**\$500,000 IN NEW MANUFACTURING ENTERPRISES**

At Athens, including a 100-ton Blast Furnace, cost \$200,000; Cotton Mills, cost \$150,000; Furniture Works, employing 200 men, cost \$100,000; Hotel, cost \$60,000; Water Works, Street Car Lines, &c. These improvements have been commenced which, added to other improvements projected, will add

**\$1,000,000 OF NEW MANUFACTURING ENTERPRISES TO ATHENS.**

The company desire to open correspondence with parties desiring to locate, and will extend liberal inducements in addition to gifts of sites in order to induce New Manufacturing Enterprises to locate in Athens. City property is doubling in value every few months, and at present low prices is beyond question a very fine investment.

## The Athens Mining & Manufacturing Company,

**R. L. BRIGHT, President.**

**R. J. FISHER, Secy. and Genl. Manager.**



# DECATUR, ALA.

Offers outside investors better inducements to locate than any other

 CITY IN THE SOUTH. 

## AS A CITY OF Mammoth MANUFACTURING Enterprises,

She has few equals and no superiors in the South.

There have been located at Decatur in the last four months the following Industries :

**THE DECATUR LAND, IMPROVEMENT & FURNACE COMPANY.** Has 50,000 ACRES of Iron, Coal, Mineral and Timber LANDS  
The Louisville & Nashville Railway Car Works. Cost of Buildings, \$300,000.

Charcoal Company's plant, costing \$120,000.

A seventy-ton Charcoal Iron Furnace, costing \$190,000.

A one hundred-ton Blast Iron Furnace, costing \$225,000.

The Decatur Iron Bridge Construction Company; cost of plant, \$100,000.

The American Oak Extract Company's plant, costing \$60,000.

Ivens & Sons Steam Boiler and Engine Works, costing \$100,000.

Morse Cotton Compress plant, costing \$60,000.

Decatur Lumber Company, Saw and Planing Mills, costing \$50,000.

Berthard & Co., Sash, Door and Blind Factory, cost \$15,000.

The Decatur Street Railway Company.

The Telephone Company.

Brush Electric Light Company, cost \$10,000.

The Ironton Wheelbarrow Company, cost \$25,000.

Howland & Co's Water Works System, costing \$200,000.

Bleymeyer Artificial Ice Company, cost \$10,000.

Four Mammoth Brickyards.

Jones, Poley & Co's Lumber Yards.

The Hoosier Mills & Building Company.

The Gate City Sash & Door Company.

Arantz Bro's Mills and Lumber Yards.

Grant & Co's Furniture Factory.

Southern Lumber Company.

H. S. Freeman's Mills and Lumber Yards.

The Alabama Farmer's Friend Fence Machine Company.

The Decatur Artificial Stone Company.

Decatur Chain and Architectural Iron Works, capital \$100,000.

Natural Gas Company, capital \$200,000.

First National Bank, capital \$100,000.

The Exchange Bank of Decatur, capital \$100,000.

Merchants' Insurance Company, capital \$100,000.

Decatur Building Association, capital \$300,000.

Decatur Building Company, capital \$1,000,000.

Buchheit's Bottling Works.

Decatur Printing Company.

Two daily papers, three weekly papers.

Two hotels are building—one \$60,000, one \$300,000; the largest in the South.

Grand Opera House, \$100,000.

THERE ARE OTHER

## Mammoth Enterprises

Locating here, and contracts are being made with some of the most extensive industries in the United States.

Decatur is the Healthiest city in Alabama, the death rate among whites for 1886 being only 11 in 1,000.

## Decatur Land, Improvement & Furnace Company.

E. C. GORDON, President.

H. G. BOND, Vice-Prest. and Gen. Manager.

W. E. FOREST, Secretary.

This Company has been pre-eminently successful in promoting the interests of the city of Decatur.

CORRESPONDENCE SOLICITED WITH PARTIES SEEKING LOCATIONS.

# SHEFFIELD

◆ COLBERT COUNTY, ALA. ◆

## The Iron Manufacturing Center of the South.

**B**EING at the *head of navigation*, and on the *south bank* of the Tennessee river, Sheffield is the *natural outlet* for the mineral and manufacturing products of Alabama and neighboring States seeking a water route to points on the Ohio and Mississippi rivers, and to the Gulf of Mexico, as well as the best *distributing point* over Alabama, Eastern Mississippi and East Tennessee, South Carolina, Georgia and Florida for Northern and Western produce, groceries, provisions, machinery, &c. *Four railroads* certain, and several others assured. *Principal shops of Memphis & Charleston Railroad* will be erected here pursuant to written contract. These will employ between *four hundred and five hundred mechanics*, and consequently, with their families, will make an increase in population of at least two thousand people. Shops of three other railroads are contracted to be located here.

### ◆ Five Blast Furnaces Now Under Construction, ◆

Of which one is nearly finished, and the remaining four contracted to completion next spring, have estimated capacity of 700 tons pig iron per day. This is 40 per cent. more than now manufactured at Birmingham, Alabama. Experts do not hesitate to say that *iron can be manufactured more cheaply* at Sheffield than at Birmingham, and its *river transportation facilities* will enable Sheffield iron to reach the principal markets at a saving of from

**\$2.00 TO \$2.50 PER TON.**

A first-class semi-weekly newspaper, printed by steam, is regularly issued. Furniture Factory, Bottling Works, Bakery, 3 Steam Brick Works, 2 Hand Brick Works, 2 Steam Wood-Working Establishments, Water Works, 2 Banks, a Savings Bank, and Steam Job Printing Office already in successful operation, and Iron Pipe Works, 15-ton Ice Machine and five-story hotel, with all modern appliances, will be erected. The Cleveland Hotel, Park House and numerous boarding houses furnish accommodations to travelers. Postoffice, Telegraph Office and Express Office already established. Contracts have been made for the early erection of Electric Light Works, Paint Works, Agricultural Implement and Machine Works and Cotton Compress. Large Stove Works, Machine Shops, additional Iron Blast Furnaces, an extensive Charcoal and Chemical Plant, a large Rolling Mill and other manufacturing establishments under consideration, and will probably be built shortly.

Good Water. Free Public Schools and Churches. Health and Climate Unsurpassed.

*Drainage excellent.* Splendid opening for men of *push and energy*. No "Old Foggy" element here.

No better point for *profitable investment*.

## ◆ Sites for Manufacturing Enterprises, ◆

**And for Free Public Schools and Churches**

**Donated by Sheffield Land, Iron & Coal Company.**

Population January 1st, 1887, 700; now, (August 21st, 1887,) by actual count, 2,583. Increase of population, 300 per cent. in eight months, and only limited by accommodations.

*Three years ago* the site of Sheffield was cultivated as corn and cotton plantations, and was without a railroad. Numerous two and three-story brick business houses, and one and two-story dwellings have been, and are being erected. The class of buildings will compare favorably with those in cities of 20,000 inhabitants.

**LIMESTONE** of excellent quality for *fluxing iron* in unlimited quantities at the furnaces' sites. First-class building stone and brick clay abundant. Rich and extensive deposits of *brown hematite iron ore* within twenty miles, along the lines of *two Sheffield railroads*. The Sheffield & Birmingham Railroad runs through the heart of the *Warrior Coal Fields*, which abound in first-class *coking, steam, gas and grate coal*. *Timber* is abundant and cheap.

The *Memphis & Charleston Railroad* and the *Sheffield & Birmingham Railroad* are now in operation into Sheffield. The *Louisville & Nashville Railroad Co.* is now extending its *Nashville, Florence and Sheffield* division, which will be completed to Sheffield before the close of the year 1887. Surveys of three other railroads have been recently completed to Sheffield, which will soon be the *best combined river and railroad transportation center* in the South.

Every merchant and every established manufacturing enterprise is doing a profitable business. *More are needed.* For further information address

**ALFRED H. MOSES, Vice-Prest. and Manager**

**Sheffield Land, Iron & Coal Co., - Sheffield, Ala.**




# Stilwell's Patent Lime **HEATER AND FILTER** Combined. Extracting

## The Only Lime Extracting Heater That Will Prevent Scale in Steam Boilers.

Removing all impurities from the water before it enters the boiler.

**Thoroughly Tested. Over 3,000 of Them in Daily Use.**

This cut is a facsimile of the appearance of a No. 5 Heater at work on ordinary lime water, when the door was removed after the Heater had been running two weeks.  Illustrated Catalogue Free.

**STILWELL & BIERCE MFG. CO., DAYTON, O.**



**Side Bars.**  
**Jump Seats.**

# BUGGIES.

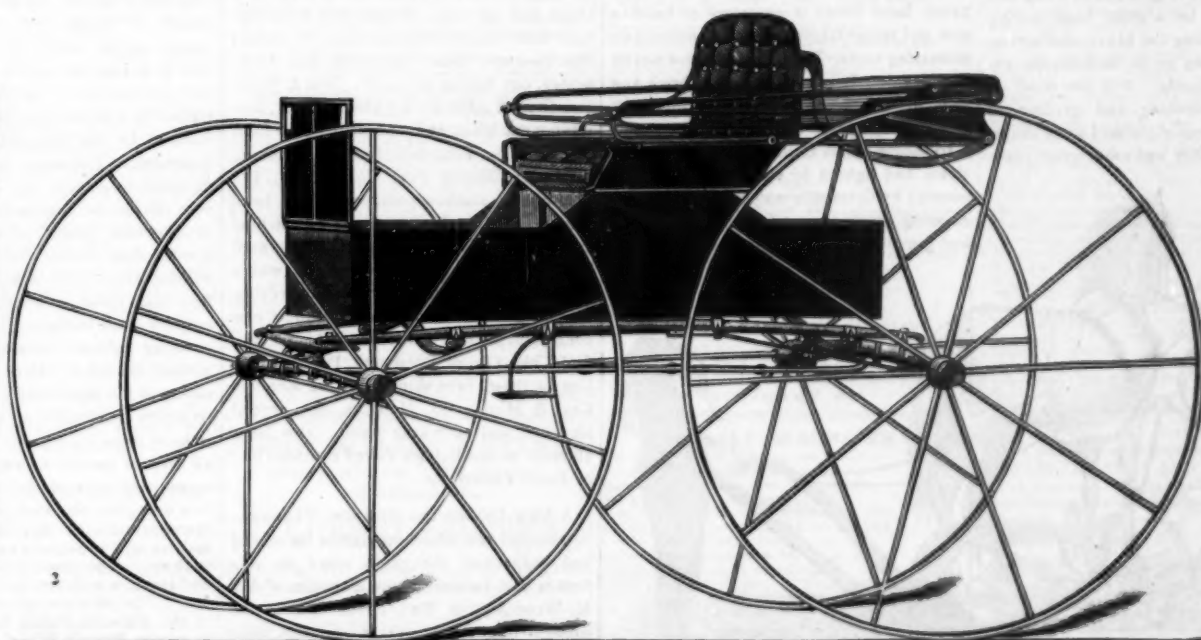
**Phaetons.**  
**Spring Wagons.**

J. F. BYRNE, PRESIDENT.

JAS. SHELTON, TREASURER.

J. WERNSING, SECRETARY.

**ENTERPRISE CARRIAGE MFG. CO.** 42 to 80 East Court Street,  
CINCINNATI, OHIO.

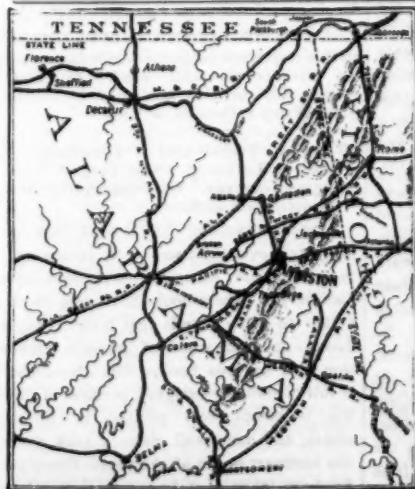


—LARGE ASSORTMENT. FULL LINE.—  
Best Work in the United States for the Money  
CAPACITY 600 BUGGIES PER WEEK.

**We want a Country Merchant or Dealer  
to act as our Agent in every County  
in the United States.**

## Special Inducements to Dealers Buying Car-Load Lots.

**WRITE FOR TERMS AND FULL PARTICULARS. ILLUSTRATED CATALOGUE.**



**LEDBETTER & CO.**  
**LAND AND LOAN ASSOCIATION.**

-Commission Dealers in

## Lands, Stocks and Bonds.

**—CITY AND MINERAL PROPERTY—**

A SPECIALTY.

**Capital Stock**  
**\$100 000**

**CORRESPONDENCE  
SOLICITED.**

ANNISTON, ALA.

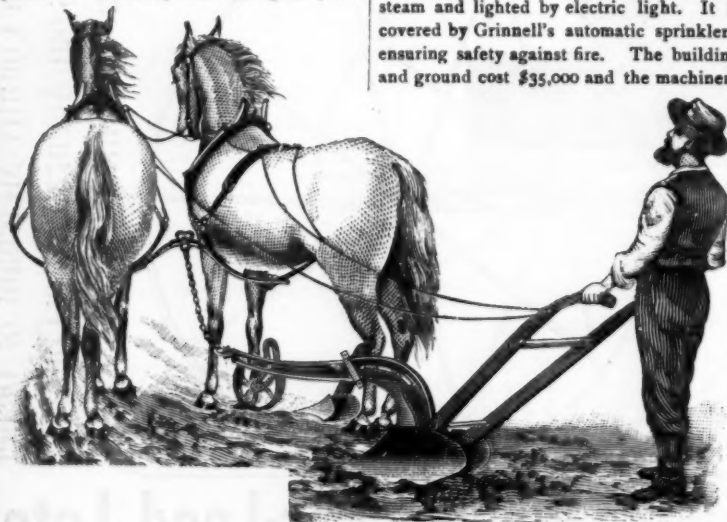
—REFERENCES:—  
First National Bank, Anniston, Ala.  
Col. John M. Makleroy, Pres., Anniston City Land Co.

## TRADE NOTES.

THE T. K. Earle Manufacturing Co., of Worcester, Mass., are running over time with their machinery for grinding the Decker patent needle point on hardened and tempered steel wire card clothing for woolen, worsted and cotton mills. They are furnishing this clothing for the new woolen mill of D. F. Wood, in Northboro, Mass., and are filling large orders for cotton, woolen and worsted mills in Philadelphia, Baltimore and the South. Their needle pointed felt cloth card is said to be the finest that is made, and they will gladly furnish it on trial. Satisfaction guaranteed or no pay. Samples and information furnished on application.

THE Abendroth & Root Manufacturing Co., 25 Cliff street, New York, have recently closed contracts for Root's sectional safety boilers with the Edison Illuminating Co., of Detroit, Mich.; First Cincinnati Edison Illuminating Co., Cincinnati, Ohio; Jersey City Electric Light Co., Jersey City; Brush Electric Light Co., Louisville, Ky.; Columbus Edison Electric Light Co., Columbus, Ohio, and the Edison Electric Light & Power Co., St. Paul, Minn.

THE SHERWOOD STEEL HARNESS.—The accompanying cut represents a common sense harness for heavy work, doing away entirely with the whiffletrees and traces. To the farmer, plowing day in and day out, this harness will be a great boon, saving the labor of handling the heavy whiffletrees, and, when plowing in an orchard, the expense of extra hands. For any kind of heavy hauling, ditching and grading or logging this harness is claimed to be unsurpassed for durability and other good qualities.



ties. It was first manufactured six years ago, and during the past three years has had very extensive sales, and the Sherwood Harness Co., of Syracuse, N. Y., who are the sole manufacturers, have been obliged to make very extensive additions to their business in order to supply their trade through various agencies for its sale throughout the country which are said to pay handsomely. The Sherwood Harness Co. wants a good, live agency in every county in the South. Parties interested can obtain territory and terms by addressing Sherwood Harness Co., Syracuse, N. Y.

THE Hercules Iron Works, Chicago, are figuring on considerable work in the South, principally ice machinery. Their Hercules machine is giving much satisfaction wherever used.

THE Famous Manufacturing Co., of Quincy, Ill., make a hay press that is adapted for use of shippers of moss in the Southern States. It is a strong and substantially-built press, and for the purpose named is just what is wanted. They are sold under a guarantee. Descriptive catalogue and prices upon application.

Rice millers and planters who desire a complete and effective machine for cleaning and separating rice should write for the new illustrated catalogue of Johnson & Field, of Racine, Wis. Their dustless rice cleaner was built by them at the suggestion and for some of the largest rice millers in the South, was then enlarged, strengthened and improved until it is just the kind of machine that is needed—doing the most thorough and effective work. By changing the screens the machine will separate and clean grain or seeds of any kind. It is considered by rice millers as the most valuable invention in that line that has been brought forward in years.

MESSRS. E. J. CODD & Co., foundry, machine and boiler works, Nos. 700 to 708 South Caroline street, report business as remarkably active. This house was established twenty-eight years ago. Their works are equipped with all the latest improved machinery for manufacturing stationary and marine boilers, stills, tanks, agitators' kettles, stationary and marine engines, fertilizing mills, steam dredges, etc. They also devote considerable attention to steamship, mill and other repairs. During the past year they have made repairs to many boats and to fertilizer mills and overhauled all kinds of machinery.

MESSRS. BOYD & BAXTER, of Atlanta, whose excellent display of furniture at the Piedmont Fair gave visitors some idea of the quality of goods made by this well-known house, have found it necessary to build a new and larger factory to accommodate their increasing trade. This factory is now nearly completed. It is constructed of brick and iron, fire-proof, and five stories high, 225 feet long by 45 feet wide. It will be run by a 100 horse-power Corliss engine, heated by steam and lighted by electric light. It is covered by Grinnell's automatic sprinklers, ensuring safety against fire. The building and ground cost \$35,000 and the machinery

\$12,000. Over one hundred men are employed in the factory, and if their business increases in the ratio it has for the past year, their capacity will have to be doubled before 1889. The Atlanta Constitution says "that Mr. Egan, of the well-known Egan Manufacturing Company, of Cincinnati, says of this factory that it is the largest and best equipped in the South, and equal to any in the North. This factory can turn out anything from a baby cradle up, and there is no longer any reason to doubt that Atlanta will in the near future be the leading city in the South in the manufacture of furniture."

ATTENTION is directed to the advertisement of the Quincy Metal Wheel Co. in another column. This concern manufacture a full line of metal wheels by a new patent process and entirely new method. The spokes being connected to the other parts of the wheel by enlarged tenons, formed in place by heavy pressure and while cold making a wheel of great strength, rigidity and durability. This wheel is finding favor among the agricultural implement and other manufacturers all over the country, and sales and shipments are very largely increasing.

THE Blakeslee Manufacturing Co., of Du Quoin, Ill., are just out with their new catalogue of steam pumps and water works machinery, with prices for 1888. A copy will be sent gratis to those who apply.

THE Lechner Manufacturing Co., of Columbus, Ohio, have changed their corporate name to the Jeffrey Manufacturing Co. (J. A. Jeffrey, president and general manager,) under which title all their business will hereafter be conducted.

EVERY carpenter, builder and mechanic in the South who has not seen the new hand and foot-power circular saws manufactured only by Post & Co., of Chicago, Ill., should send for illustrated descriptive circular and prices. They are wonderfully efficient, saving time and labor, and soon pay for themselves. They are a new machine, well made, and sold at a very reasonable price.

SCHENCK'S ADJUSTABLE FIRE BACK Co., of Chicago, report a splendid business in their line. Their bolt, screw and shot cases are considered an indispensable article by hardware dealers, who cannot cease to wonder at their immense capacity, considering the little space they occupy. Dealers who handle shot, screws and bolts should examine the revolving cases made by this company.

THE Jeffrey Manufacturing Co., of Columbus, O., have recently made the following shipments: Marshall Consolidated Coal Mining Co., Denver, Col., one mining machine and one drill; Wilmington & Springfield Coal Co., Springfield, Ills., two drills; Northwestern Coal Navigation Co., Lethbridge, one mining machine; Ohio & Western Coal & Iron Co., Floodwood, O., two mining machines and one drill; Coal Bluff Mining Co., Fontanet, Ind., one mining machine; Illinois Fuel Co., Barday, Ill., four mining machines and one drill; Iowa Fuel Co., Colfax, Iowa, one mining machine and one drill; also furnished St. Bernard Coal & Coke Co., of Earlinton, Ky., with a complete outfit of elevators and conveyors, including engine and boiler, for their new coke plant; also a similar outfit to the Sanford Coke Co., of Pittsburgh, Pa. In addition to these, have shipped to the Mendota Coal & Mining Co., Mendota, Mo., several elevators and screening outfit; also large elevator to the Lehigh Valley Railroad Co., of South Easton, Pa.

A NEW DEVICE FOR SPINNING FRAMES.—A practical and important device for raising and supporting the guide board on ring frames and twisters is the invention of Mr. R. Wolmsley, of Fall River, Mass., who brought it out little over a year ago, since which time it has been tested and adopted in some of the largest mills of New England and through the Middle States as far South as Delaware, aggregating its present use on over 800,000 spindles. The qualities, which to us seem most strongly to commend it, are its simplicity and cheapness, as it is made with but few parts, which are easily applied by an ordinary mechanic to the regular frame. It consists of a guide board, which is hinged to the roller beam. A handle on the guide board with a latch attached to the same is made to work in a slotted piece bolted to the roller beam, and dropping into the slot when the board is lifted, supports it at any desired angle. It can be raised from any position along the front of frame, without any attention to the latch, which works entirely automatic. The board is made the whole length of frame, or may be cut in half as desired, and a latch applied to the center of each division. By this means all the wires are raised at once, instantly, a great improvement over the old method, and saves in doffing alone, we are informed, 50 per cent. or half the labor, besides a large percentage of waste from the breaking of threads. It would seem from the foregoing that few mill owners could afford to be without it, the cost being light and the advantage considerable.

THE new machinery recently put into the Planters' & Merchants' Rice Mill, at Charleston, S. C., consisting of an entire outfit of conveyors, shafting, sprocket wheels, chains and pulleys, was furnished by H. W. Caldwell, 133 West Washington street, Chicago. The work of putting the machinery in order was superintended by Mr. F. M. Reynolds of Chicago.

We invite attention to the advertisement of Messrs. B. F. Starr & Co. North and Center streets, Baltimore, with a branch office at No. 391 Greenwich street, New York. This house was founded in 1857 and is well and favorably known. Their factory is a three-story building about 50x100 feet and is equipped with the best modern machinery, tools and appliances known to the trade. Messrs. Starr & Co., furnish estimates for all kinds of flour mill supplies, from the largest and most modern roller mill to the smallest merchant or custom mill, working wheat and corn either by rolls or stones; they also do elevator and fertilizer work and are prepared to give plans and full information for same. They manufacture and furnish machines and machinery for spice, cracker, drug, cotton, rice, sugar, etc. They supply rolls, millstones, bolting chests, purifiers, centrifugal reels, wheat cleaners, rock crushers, mixers, screens, rubber, leather, link belt and link belt machinery, sprocket wheels, wood conveyors, silk and wire bolting cloths, etc.

CURE FOR SLIPPING BELTS.—Nearly every user of power and machinery is more or less troubled with the slipping of belts; this means of course just that much steam wasted, and as steam costs coal and attention it is just that much money lost. We take pleasure in calling the attention of our readers to a patent friction covering, manufactured by the National Pulley Covering Company, of Baltimore, which is expressly designed to remedy this slipping and prevent the loss we have mentioned. The grip or frictional power is said to be much greater than leather; and as it is applied without rivets there is not that wear on the belt that there is when the pulleys are covered with leather. By the use of this covering you can run with slack belts and without the use of idlers and tighteners, securing at the same time a steady and uninterrupted revolution of machinery without jerks or stops. This will be appreciated by all users of power; as a steady and uninterrupted revolution of the engine means that it is doing just the work it ought to do; but manufacturers of fine fabrics, and paper makers will especially understand its value to them. The cover is very easy to apply and requires no rivets or drilling of the pulley. The principal office and manufactory of the National Pulley Covering Company is corner Bowly's Wharf and Wood street, Baltimore, Md., and they will be pleased to send descriptive circular and furnish any information that be may be required.

## Literary Notes.

STEAM users will find a little volume by Prof. R. H. Thurston, entitled "Steam Boiler Explosions," of much interest and value. Prof. Thurston has devoted great attention to this important subject, and the facts which he presents are well worthy of careful study. The book is published by Messrs. John Wiley & Sons, New York.

"TWELVE TIMES ONE." Illustrated by Mary A. Lathbury. New York: Worthington Company. With descriptive poems by prominent authors.

A more beautiful child's book than this has rarely ever been seen. In reviewing it the Baltimore American says that Miss Lathbury's "former books have won for the author so many friends that it seems superfluous to add any words of praise in connection with her new book. The latter, which is full of daintily-designed pictures of child life, is sumptuously printed in thirteen colors, and may well claim a rank among the finest art books of the year. Every care has been taken to make the mechanical part of this work as perfect as the lithographic art can make it, and the exquisite work of Miss Lathbury has been faithfully copied to







## SOFT WOOD WHEELBARROW.

★ **Champion King.** ★  
Smooth, Neat and Durable.

THE WHEEL  
Is half the Wheelbarrow.

Our Wood and Iron Center Wheels are the best that were ever used in a Wheelbarrow. They are made as follows: 18 inches in diameter; Lumber, bone dry; Tire put on hot; Painted. We pride ourselves in the fact that while our prices are low, **very low**, the standard of quality is high, **very high**. Write for Catalogue and Prices.

THE BRYAN MFG. CO., Bryan, Ohio.

"The Old and Only Reliable." LATEST IMPROVED FORT WAYNE

## Western Washer.

SOLD ENTIRELY ON ITS MERITS.

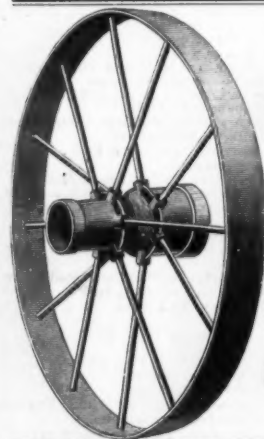
We have furnished these machines to an appreciating public for the past twelve years, during which time the demand for them has increased steadily and rapidly.

Each Machine is Warranted to give Perfect Satisfaction.

We want this machine represented in every city and town, and will give liberal discounts to dealers or agents and will guarantee the sale and satisfaction of them. Price, No. 1, Family Size, \$8; No. 2, Large Family, \$9; No. 3, Hotel Size, \$10. Write for catalogue and terms to

THE HORTON MANUFACTURING CO.

FORT WAYNE, IND., U. S. A.



THE QUINCY  
**Metal Wheels**  
FOR ALL PURPOSES.

Conceded the best, and used by the leading manufacturers in the United States. The only Wheel in which the spokes are connected to other parts of the Wheel with enlarged tenons, formed in place by heavy pressure and while cold. Send for descriptive catalogue, and mention this paper.

Quincy Metal Wheel Co.

QUINCY, ILL.



THE HOWELL PATENT  
Suspension Iron and Steel

## WHEEL.

FOR  
Wheelbarrows, Trucks, etc.  
Lightest, Strongest and  
Cheapest Wheel in  
the Market.

Based on new and scientific  
principles. Highly endorsed.  
Write for description and  
prices to the

HOWELL WHEEL CO.  
COVINGTON, KY.

Mention this paper.



## Riveting Forges for Boiler Makers.

The Riveting Forges are made especially for boiler makers, bridge builders and miners, and where forges are required to be carried from place to place or left exposed to the weather. Their construction is simple, and the bellows cannot be injured in the least by their being exposed to the weather; the blast is continuous, like unto a fan or blower, and all have a positive blast. For Bellows, Stationary and Portable Forges Tuyers, Blacksmiths' Tools,

—WRITE—

The T. H. Bullock Bellows & Forge Co. CLEVELAND, Ohio.

## TO READERS OF ADVERTISEMENTS.

Readers of the MANUFACTURERS' RECORD who order any goods herein advertised, or ask for information concerning them, will oblige the publishers by stating that they saw the announcement in the columns of this paper.

## Covert Manufacturing Company.



The Greatest Emporium in the World for the best Snaps, Chain, Rope and Web Goods, &c., manufactured, is the celebrated works of the

Covert Manufacturing Co. West Troy, N.Y.

For Sale by all Jobbers Handling this Class of Goods.

## ★ COLT'S NEW LIGHTNING ★ 22 Calibre Rim Fire Magazine Rifle.



THE MOST PERFECT LITTLE GUN OF THE AGE

For Small Game, Gallery, Target Practice and Snap Shooting, it is unrivaled. It is light, durable and safe. Weight 5½ pounds. The ammunition is cheap—100 shots for 50 cents. For circulars giving full description and price, also for "IDEAL RELOADING TOOLS," address

## IDEAL MANUFACTURING CO.

P. O. BOX 1064, C.

NEW HAVEN, CONN.



**G. A. CROSBY & CO.**  
Manufacturers of  
**PRESSES, DIES**  
**SPECIAL MACHINERY**  
**SHEET METAL WORKERS**  
259, 261 & 263 Randolph St., Chicago, Ill.



**NIAGARA**  
**Stamping & Tool Co.**  
MANUFACTURERS OF

**TINNERS' MACHINES AND TOOLS**

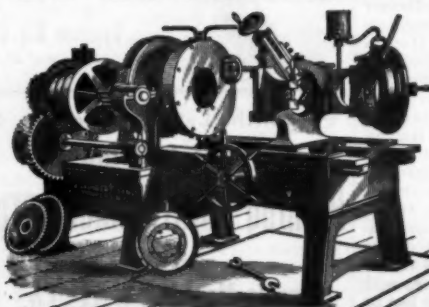
For Working Sheet Metal, &c.

Squaring and Circle Shears,  
Fruit Can Dies and Tools,  
Canners' Outfits.

Superior, Corner of Randall Street,  
BUFFALO, N. Y.

Write for our Catalogue and Price List and mention this paper.

## D. SAUNDERS' SONS



MANUFACTURERS OF  
Pipe Cutting and  
Threading Machines,  
For Pipe Mill and Steam  
Fitters' Use.

Tapping Machines

For Steam Fitting. Also,  
**STEAM AND GAS FITTERS**  
**HAND TOOLS,**  
Atherton Street.  
Send for Catalogue B.

SEND FOR CIRCULARS.

YONKERS, N. Y.



## → HARDWARE. ←

## Baltimore WHOLESALE Prices.

**ANVILS.**  
Eagle and Vulcan..... \$10.00 to \$20.00  
Wright's..... \$10.00 to \$20.00  
Armstrong's Mouse Hole..... \$10.00 to \$20.00  
Trueman..... \$10.00 to \$20.00  
Wilkinson's..... \$10.00 to \$20.00

**ANVILS AND BITS.**  
Conn. Valley Mfg. Co..... extra, 60¢ to \$1.00  
Douglas Mfg. Co..... No. 1, 60¢ to \$1.00  
Ives..... 60¢ to \$1.00  
Cook's Douglas Mfg. Co..... 60¢ to \$1.00  
Grissold..... 60¢ to \$1.00  
Patent Solid Head..... 60¢ to \$1.00  
Russell Jennings' Auger, Dowell, Machine..... 60¢ to \$1.00  
Dowel and Hand Rail Bits..... 60¢ to \$1.00  
Ives' "Jennings" Bits..... 60¢ to \$1.00  
Expansive Bits, Clark's small, 2 1/2; large, 3..... 60¢ to \$1.00  
Expansive Bits, Ives..... 60¢ to \$1.00  
Expansive Bits, Blake's..... 60¢ to \$1.00  
Hollow Augers, Ives..... 60¢ to \$1.00  
Hollow Augers, Douglas..... 60¢ to \$1.00  
Hol. Aug. Honney's Adjust. 3/4 doz \$4.50, 1 doz \$8.00  
Hol. Aug. Stearns' Adjust. 3/4 doz \$4.50, 1 doz \$8.00  
Hol. Aug. Ives' Expansive, each \$4.50, 1 doz \$8.00  
Hol. Aug. Universal Expansive, each \$4.50, 1 doz \$8.00  
Wood's..... 60¢ to \$1.00  
Gimlet Bits..... 60¢ to \$1.00  
Gimlet Bits, Diamond..... 60¢ to \$1.00  
Double Cut Gimlet Bits, Shephardson's..... 60¢ to \$1.00  
Double Cut Gimlet Bits, Douglas..... 60¢ to \$1.00  
Double Cut Gimlet Bits, Ives..... 60¢ to \$1.00  
Morris' Bit Stock Drill..... 60¢ to \$1.00  
L. Hommedieu's Ship Augers..... 60¢ to \$1.00

**AWL HATS.**  
Sewing Brass Ferrule..... \$3.50 gross—dis 40¢ to 50¢  
Patent Sewing, Short..... \$10.00 gross—dis 40¢ to 50¢  
Patent Sewing, Long..... \$10.00 gross—dis 40¢ to 50¢  
Patent Peg, Plain Top..... \$10.00 gross—dis 40¢ to 50¢  
Patent Peg, Leather Top..... \$10.00 gross—dis 40¢ to 50¢

**AWLS, HEAD SETS, &c.**  
Awls, Sewing, Common..... \$7.50—dis 35¢  
Awls, Shouldered Peg..... \$7.50—dis 35¢  
Awls, Patent Peg..... \$7.50—dis 35¢  
Awls, Shouldered Brad..... \$7.50—dis 35¢  
Awls, Handled Brad..... \$7.50—dis 35¢  
Brad Sets, Aiken's..... \$7.50—dis 35¢  
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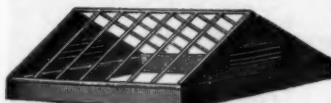
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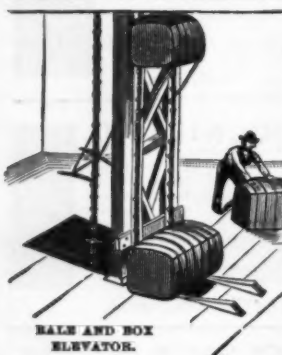
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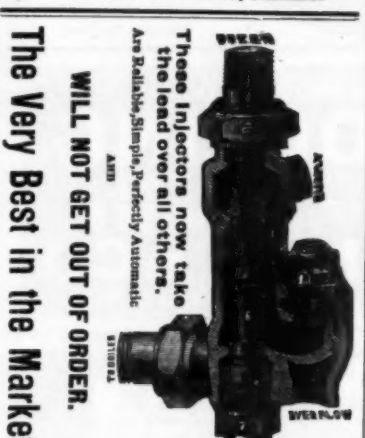
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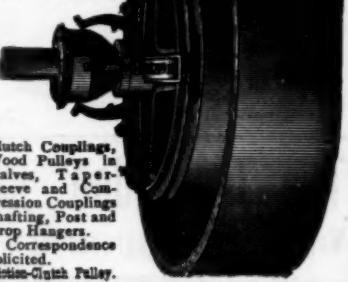
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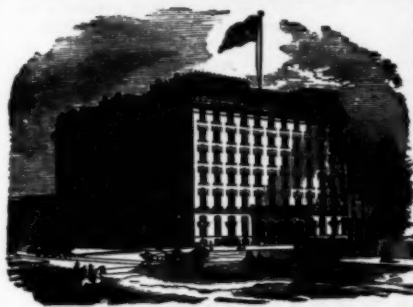
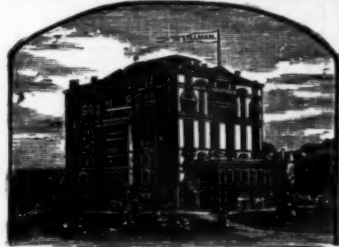
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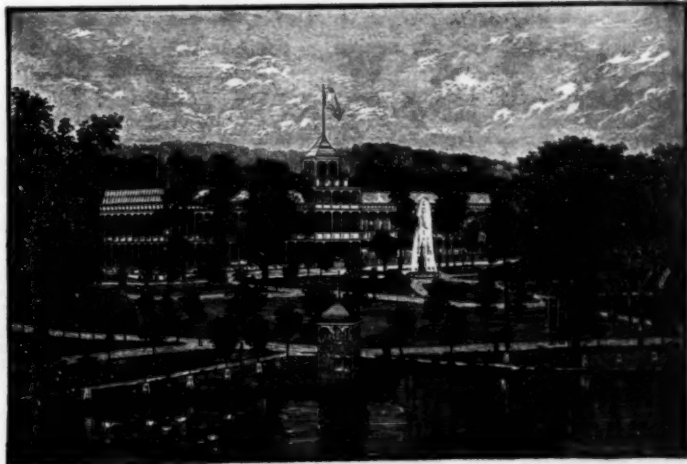
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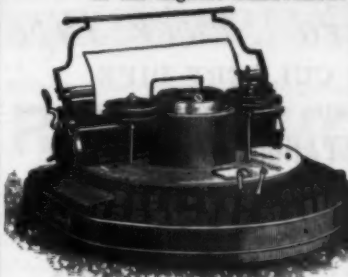
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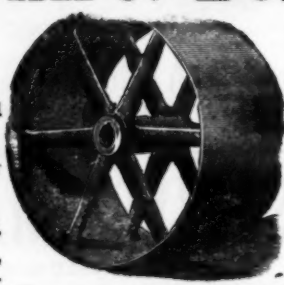
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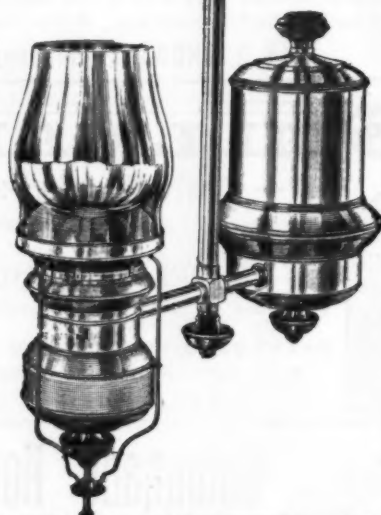
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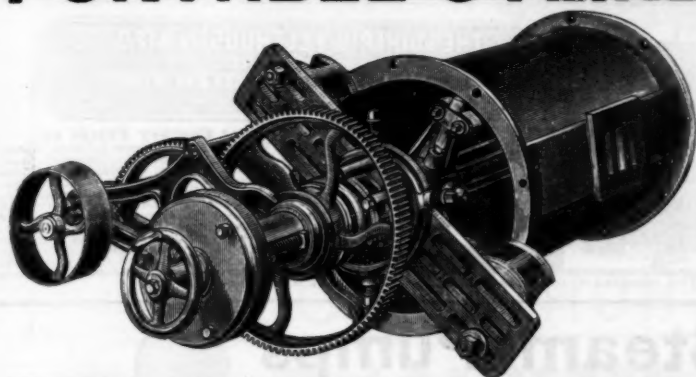
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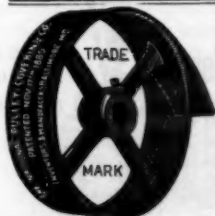
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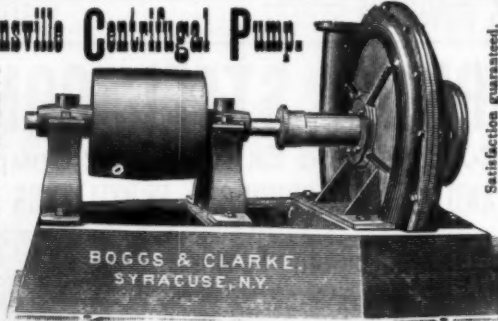
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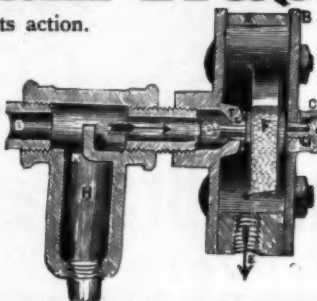
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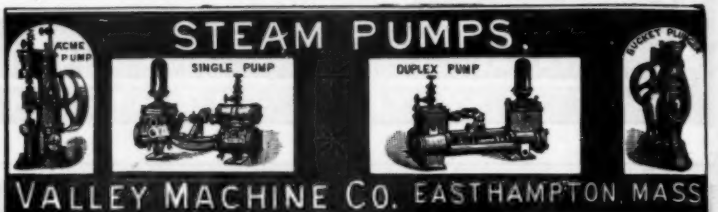
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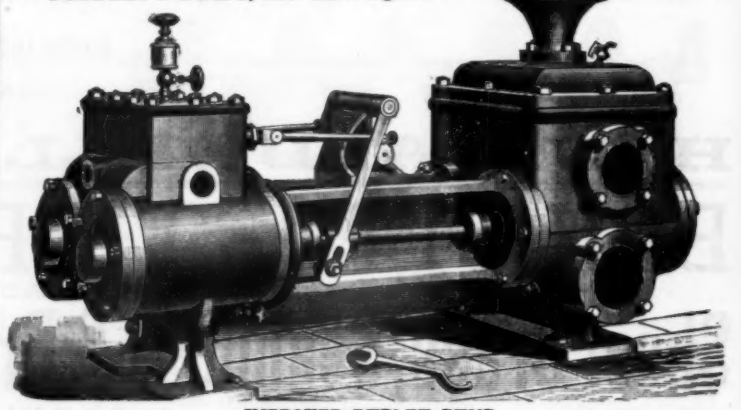
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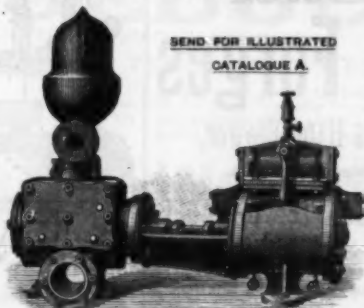


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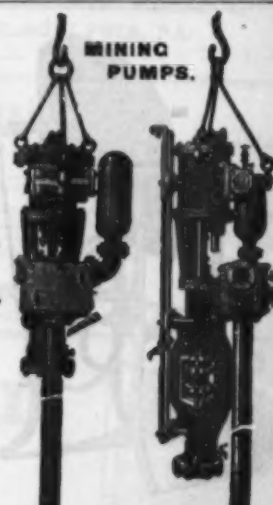
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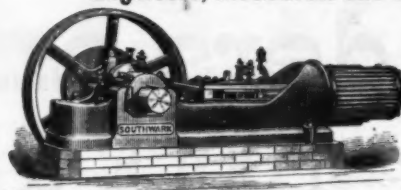
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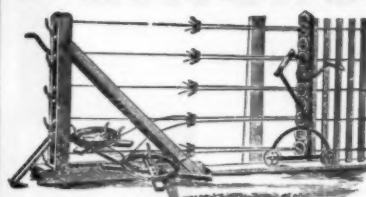
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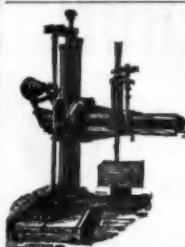
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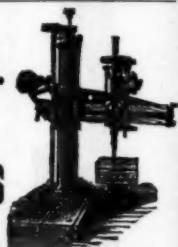
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